

JPRS-UAG-84-035

10 September 1984

# USSR Report

AGRICULTURE

**FBIS** FOREIGN BROADCAST INFORMATION SERVICE

## NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [ ] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

## PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service (NTIS), Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semimonthly by the NTIS, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

Soviet books and journal articles displaying a copyright notice are reproduced and sold by NTIS with permission of the copyright agency of the Soviet Union. Permission for further reproduction must be obtained from copyright owner.

10 September 1984

## USSR REPORT AGRICULTURE

### CONTENTS

#### MAJOR CROP PROGRESS AND WEATHER REPORTING

Moscow Radio Reports Agricultural Developments 26 July-10 August (Moscow Domestic Service, various dates).....	1
26-29 July	
30 July-1 August	
2-5 August	
6-8 August	
8-10 August	
Moscow Cites Reports on Sowing, Harvesting, Progress (Moscow Domestic Service, 8 Aug 84).....	9
Vorotnikov Tours Orenburg, Altay, Bashkir Regions (SOVETSKAYA ROSSIYA, 9 Aug 84).....	10
Concern for Quality of Grain Urged (V. Pankratov; PRAVDA, 13 May 84).....	12
Rostov Farmers Must Improve Agricultural Work (Yu. Maksimenko; SEL'SKAYA ZHIZN', 21 May 84).....	14
Industrial Farming Methods Used in Southern Kazakhstan (KAZAKHSTANSKAYA PRAVDA, 17 May 84).....	16
Difficulties With Uzbek Harvest Related (A. Uzilevskiy; SEL'SKAYA ZHIZN', 22 Jun 84).....	18
Weather Affects Chimkent Agricultural Plans (A. Utyaganov; SEL'SKAYA ZHIZN', 29 Jun 84).....	20
Weather Readies Kuban Crops for Harvest (Yu. Semenenko; SEL'SKAYA ZHIZN', 27 Jun 84).....	22

Briefs	
Spike Crops	24
Spring Crops	24
Mass Threshing	24
Pamir Rivers	25
Beginning of Harvest	25
Grain Harvest	25
Foothill Harvest	25
Strong Grain	26
Kuban Harvest	26
Inspection of Equipment	26
Stavropol Grain	27
Spring Crops	27
Rainbows Over Fields	27
Winter Crop Harvest	27
Ripe Grain	27
Corn Harvest	28

#### POST HARVEST CROP PROCESSING

Grain Transport Preparations in Kazakhstan (KAZAKHSTANSKAYA PRAVDA, various dates).....	29
Trailer Shipment to Elevators, by T. Shandrov Cooperation of Partners, by V. Kharchenko Harvest Transportation, by S. Plokhov	
Rail Transportation Problems Aired (Yu. Nikol'skiy; SEL'SKAYA ZHIZN', 13 Jun 84).....	35
Automotive Transportation Used To Move Harvest (SEL'SKAYA ZHIZN', 23 Jun 84).....	38
Railroad, Procurement Workers Cooperate in Harvest (GUDOK, 4 Jul 84).....	41
Railroad Responsibility for Dispatch, Pickup of Cars (MUKOMOL'NO-ELEVATORNAYA I KOMBIKORMOVAYA PROMYSHLENNOST', No 4, Aug 84).....	43
Routes for Grain Deliveries Being Prepared (SEL'SKAYA GAZETA, 30 May 84).....	45

#### LIVESTOCK

Meat, Dairy Industry Minister Outlines Goals, Notes Problems (Ye. I. Sizenko; EKONOMICHESKAYA GAZETA, No 28, Jul 84)...	47
--	----

#### AGRO-ECONOMICS AND ORGANIZATION

Labor Productivity, Output Capital Ratio in Kolkhozes Discussed (V. Gayevskaya; EKONOMIKA SEL'SKOGO KHOZYAYSTVA, No 5, Apr 84).....	52
---	----



## MAJOR CROP PROGRESS AND WEATHER REPORTING

### MOSCOW RADIO REPORTS AGRICULTURAL DEVELOPMENTS 26 JULY-10 AUGUST

26-29 July

LD300316 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 26-29 July. Times of broadcasts are given in parentheses at the end of each item.

26 July

Harvesting of grain is under way in southern parts of Belorussia. In Moldavia, farms on the Budzhad steppe have started selling wheat to the state. In Orel Oblast all rayons are reaping rye and wheat. In total throughout the country, cereals have been reaped on 24.6 million hectares and threshed on 20 million hectares. (0004 GMT)

Grain harvest has begun in Kostroma Oblast. Harvest has also begun in Issysk-Kul Oblast in Kirghizia where machine operators are to gather wheat and barley on 80,000 hectares. Cereals on the whole in the republic occupy some 500,000 hectares. To date, they have been harvested on almost half that area. Harvest is nearing completion in the Osh Oblast and Chuy Valley. (0400 GMT)

The Kuban has completed the harvest of winter grain. The ground is now being prepared for winter sowing. The yield of winter cereals was grown under difficult weather conditions but is greater than in previous years. The third million metric tons of grain is being sold to the state. (1300 GMT)

The harvest of winter cereals and pulse crops has been completed on almost 2 million hectares in the Kuban. (1400 GMT)

27 July

Winter crops sowing, mostly rye, has begun in northern areas of Perm Oblast. It is planned to cover more than 200,000 hectares with rye this year. (0204 GMT)

Grain has been harvested on a third of the area in Ulyanovsk Oblast. Harvest of peas has been completed. (0400 GMT)

Grain crops have to date been harvested from 500,000 hectares in Penza Oblast, which is more than one-third of the area. (1200 GMT)

28 July

Harvesting of corn for silage has started in Saratov Oblast, where this valuable fodder crop covers about 500,000 hectares. (0400 GMT)

In Saratov Oblast grain crops have been harvested on 2 million hectares to date, which is more than half of the plan. More than 1 million hectares have been plowed in preparation for winter crops. (0600 GMT)

Grain and pulse crops have been threshed on half of the sown area to date in the Ukraine. Drivers of Goskomselkhoztekhnika in the Ukraine have conveyed 1 million tons of grain since the beginning of the harvest. (0800 GMT)

Potato lifting has started in the Bryansk Oblast. The total area there is 117,000 hectares, the greatest area in the RSFSR. The Perm Oblast fulfilled the plan in production of haylage: about 500,000 tons have been laid in. (1000 GMT)

Grain corn has begun arriving at the threshing-floors of Surkhandarya Oblast. The target is for over a million metric tons. (1200 GMT)

29 July

Harvesting in south Belorussia has begun. Tataria farms have completed grain harvesting on 500,000 hectares. (0400 GMT)

Harvesting has reached the western and central areas of Belorussia and the RSFSR non-chernozem zone. It is also developing in the Volga Valley, south Urals and Kazakhstan. The Kuban is nearly finished. The pledge here is 4,315,000 tons of grain. (0600 GMT)

In the Kuban, over 2.5 million metric tons of grain have been delivered to date. (1100 GMT)

30 July-1 August

LD020420 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 30 July-1 August. Times of broadcasts are given in parentheses at the end of each item.

30 July

Reaping is now in progress in 10 out of the 12 oblasts of Kazakhstan. Machine operators have already reaped and threshed grain crops from 2.5 million hectares, one-tenth of the area sown to grain. Combine operators are threshing grain crops on more than 100,000 hectares every day. Machine operators have also begun plowing under winter fallow. (0800 GMT)

Kursk Oblast farmers have reaped grains from 500,000 hectares, which is half of the area given over to grain crops. (1100 GMT)

In Kursk Oblast reaping is being done on the second half of grain fields and soil is being tilled after the straw has been carted from the fields. Preparation of fields for the sowing of winter crops should finish shortly. (1500 GMT)

The reaping of grain is over in the Karabakh Steppes in Azerbaijan. (1830 GMT)

31 July

By today grain will have been harvested on 250,000 hectares in Kirghizia, which is more than half of the republic's grain field. (0204 GMT)

Saratov Oblast grain procurement points have so far accepted 100,000 tons of grain, chiefly winter rye and wheat. Early potatoes are being gathered in Mari ASSR. The harvest this year is good, with yields reaching 140 and even 160 quintals per hectare. (0600 GMT)

Donetsk Oblast farmers end their harvest. Seed alfalfa is being harvested in the Chechen-Ingushetiya Steppes. (0800 GMT)

A mass sale of wheat to the state is underway in the Ukraine. The sowing of winter crops has begun in the northern areas of the country. (1800 GMT)

1 August

Potato harvesting has begun in Mari non-Chernozem region. (0001 GMT)

Over 900,000 tons of hay have been laid in in Tselinograd Oblast, which is more than 80 percent of the planned figure. (0030 GMT)

Grain harvesting on 500,000 hectares has been completed in Ryazan Oblast. A total of 175,000 tons of grain will be delivered to elevators here by today. (0400 GMT)

Corn harvest is going well in Uzbekistan. Kursk Oblast farmers have prepared 500,000 hectares for winter crops. (0600 GMT)

Grain crops have been reaped on 100,000 hectares to date at farms of the Mari non-Chernozem zone. This is almost one-third of the acreage to be harvested. This year winter and spring crops have ripened simultaneously on the republic's fields as a result of the July heat. Harvesting of spring grain crops has started in Arkhangelsk Oblast. Altogether, Arkhangelsk farmers are to carry out harvesting of spring grain crops on an area of some 100,000 hectares. Harvesting of early grain crops has been completed in Dnepropetrovsk and Zaporozhye Oblasts. They have delivered 635,000 tons of strong and valuable wheats to state procurement centers. Harvesting of millet and buckwheat started in the Donbass today. These crops cover an acreage of 30,00 hectares in this steppe area this year; tonnage produced is far more than last year. Altay kolkhozes and sovkhoses have overfulfilled the plan for laying in haylage. Over 1.2 million tons of it have been procured. Altogether, over 2 million tons of coarse fodders, including 100,000 tons of vitamin-rich grass meal and granules, have been stored in the kray for the wintering of cattle. The month for the

procurement of fodders for publicly-owned animal husbandry has ended in Kazakhstan. During this time more hay than planned has been accumulated by the farms of North Kazakhstan, Semipalatinsk, Pavlodar and Mangyshlak Oblasts. Altogether the republic's fodder procurement workers have accumulated to date over 10 million tons of hay. This is almost two-thirds of the annual plan. (1530 GMT)

## 2-5 August

LD060119 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 2-5 August. Times of broadcasts are given in parentheses at the end of each item.

### 2 August

In Gorkiy Oblast grain has been harvested on 350,000 hectares to date, which is one-third of the grain area. (0700 GMT)

In Mordovia grain is being harvested on the second half of the area sown, while preparations are underway for sowing winter crops, which will occupy over 300,000 hectares this year. In Chuvashia harvesting continues while preparations are underway for next season, when winter crops are to occupy 162,000 hectares, most of it to be devoted to rye. In this area much attention is being given to new varieties, among which "Voskhod-2" has proved itself well, giving yields of 28 quintals per hectare and proving to be resistant to frost, drought, and rains. Meanwhile, in Novosibirsk Oblast grass has been cut on 1 million hectares, with stacked hay now amounting to almost 1 million tons. One after another rayons in this oblast are reporting fulfillment of plans for laying in of haylage. Also, preparations of vitaminized grass meal has been in progress on a two-shift basis, and has yielded almost 100,000 tons of fodder. As the summer has been wet, farms in this oblast have had to make great use of chemical preservatives in storing hay. (0600 GMT)

In Orenburg Oblast the summer is very hot and dry, and the area to be harvested is some 4 million hectares, of which over 1 million hectares has already been completed. Meanwhile, in Belorussia grain crops are to be harvested on 2.8 million hectares, but checks have shown that around 600,000 hectares, or over 20 percent of the crop, is in a flattened state. However, the locally-manufactured (ZHSK-4A) reaper is the best for such conditions, and operators are being offered revised work schedules and special pay arrangements for dealing with these crops. In the Ukraine grain, excluding corn, has been threshed on over half the area. (0800 GMT)

In Dnepropetrovsk Oblast the grain harvest is completed. (1100 GMT)

Today Lithuania started mass grain harvesting. (1300 GMT)

### 3 August

In Kuybyshev Oblast harvesting is continuing and grain has been laid in swaths on 900,000 hectares, while in Smolensk Oblast grain harvesting has begun. (0600 GMT)

In Orenburg Oblast grain crops are being reaped on the 3rd million hectares. (0800 GMT)

In the northern non-Chernozem zone of Arkhangelsk Oblast the sowing of winter crops has started: These will occupy 23,000 hectares, and one-third will be sown on bare fallows. (1000 GMT)

In Chechen Ingushtiya farmers on specialized farms have begun harvesting of seed alfalfa: This year it is planned to sell to the state more than 800 metric tons of seeds for this crop. Meanwhile, in Smolensk Oblast mass flax harvesting began today. (1100 GMT)

#### 4 August

The Belorussian grain harvest is in full swing. Early grains have been reaped on over 300,000 hectares. Bad weather has laid the corn over large areas, and rain is hampering operations. (0204 GMT)

A report from Krasnodar: By today, Kuban farmers have delivered the 3rd million metric tons of grain to procurement points, the major part of which consists of strong and valuable wheat types. (1030 GMT)

#### 5 August

Osh Oblast and Chu Valley farms have started mass harvesting of corn for grain. Average yield is over 300 quintals per hectare. (0204 GMT)

In Kazakhstan grain is being brought in from the 4th million hectare. Mass harvesting is underway in Aktyubinsk and Uralsk Oblasts and has just begun in Kustanay, while in Chimkent Oblast it is now over. In Ryazan Oblast about one-third of the total grain had been harvested by this morning. (0600 GMT)

In Stavropolye 1.5 million tons of grain have been dispatched to elevators. (1750 GMT)

Kuban farmers have sold 3 million metric tons of grain to the state. (1950 GMT)

In Orenburg Oblast the sowing of winter crops began today: 20,000 hectares of the best fallow land has been allocated for winter rye and wheat. The harvest now under way in the oblast shows that even in the conditions of the present dry summer the winter crops have produced a stable yield. The best zonally-graded varieties will be sown simultaneously with putting on fertilizer. (2230 GMT)

#### 6-8 August

LD090213 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 6-8 August. Times of broadcasts are given in parentheses at the end of each item.



## 6 August

In Chechen-Ingushetia grain harvesting is almost complete. Almost 1 and 1/2 times as much grain as planned has already been delivered to the state, mainly rich varieties of wheat. Farms in Kuybyshev Oblast have now cut grain crops on over 1 million hectares. (1530 GMT)

## 7 August

Kazakh workers have held in 10 million tons of hay. (0001 GMT)

In Saratov Oblast rye is to be sown on more than 1 million hectares.

In Kazakhstan 16 oblasts are harvesting wheat and barley. Saratov Oblast farmers are sowing winter wheat. (0800 GMT)

In Orel Oblast the reaping of winter rye has been finished and on all 150,000 hectares the crop has been laid in swatches and is being threshed. A good yield has been obtained. In Kurgan Oblast the first 100,000 hectares of winter crops and pulses have been reaped, and one-third of this has been threshed. In the hot dry summer winter rye did well, yielding over 20 quintals per hectare of grain, thanks to the new promising chulpan strain from Bashkiria. In Kirghizia sugar beet seed has been gathered for Altay, the non-Chernozem zone, and volga: for the first time over 13 quintals per hectare are being obtained. (1300 GMT)

In Belorussia early ear crops have been reaped from the 1st million hectares. (1330 GMT)

The Ryazan Oblast sales of grain to the state are in progress: so far, 250,000 tons of grain have been handed over, and over half the grain area has now been reaped. In Tuymen Oblast 17 out of 22 agricultural rayons are reaping winter rye and peas, while in Tomsk Oblast the harvest has also started: the 1st hundreds of hectares of rye have been laid in swatches and grain is to be harvested from 350,000 hectares in that oblast this year. Meanwhile, in Mordovia sowing of winter crops has begun: over 300,000 hectares will be sown to chulpan rye and mironovskaya-808 and tambovitsa wheat, which are high-yielding varieties. About one-third of the total area here consists of bare fallows. (1530 GMT)

## 8 August

In Uralsk and Semipalantinsk Oblasts sowing of winter crops has begun. Winter crops are to occupy over 2 million hectares of Kazakhstan. (0700 GMT)

In Altay Kray almost 1 million hectares of fallow land has been prepared: Rye and wheat are to be sown on some 400,000 hectares. In Belorussia to date grains and pulses have been harvested on one-quarter the sown area. (2005 GMT)

## 8-10 August

LD110623 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 8-10 August. Times of broadcasts are given in parentheses at the end of each item.

8 August

Ryazan Oblast: 275,000 metric tons of wheat, barley and rye of the new harvest have already been delivered to elevators and reception points. (2230 GMT)

Orenburg Oblast: Cereal crops have been gathered from almost half of the area sown to them. (2230 GMT)

Harvesting of ceareal crops has been virtually completed in the Chechen-Ingush ASSR. (2230 GMT)

9 August

Winter crop sowing has begun in Mordovia, where over 300,000 hectares are to be sown with the (?chulpan) high-yield variety of rye and the mironovskaya-808 and tambovitsa high-yield varieties of wheat. About one-third of this area is bare fallow, on half of which a whole complex of agrotechnical preparation has been carried out. Good condition seeds are being sown in well-tilled moist soil and mineral fertilizer applied at the same time. (1100 GMT)

Mass harvesting of grain has begun in Vitebsk Oblast in northern Belorussia. Eighty percent of the republic's farms are now harvesting grain crops. Grain has already been cleared from 250,000 hectares. (1904 GMT)

Grain crops have been threshed on over 1 million hectares in Uralsk Oblast of Kazakhstan to date. (1905 GMT)

10 August

Rye is being harvested in Altay Kray. (0001 GMT)

Shock fodder procurement month has started in Tuva ASSR. (0001 GMT)

Tatariya: Grain is being reaped on the 2nd million hectares. More than 60,000 metric tons of peas have been harvested. Sowing of winter crops has started. (0200 GMT)

Cotton is ripening in south Uzbekistan. (0200 GMT)

Winter crop sowing has started in Kuybyshev Oblast. These crops will this year cover nearly one-quarter of the grain area in the oblast. Half the grain has not been cleared yet on farms in the country, yet winter crop sowing has started; these crops will cover over 40 million hectares. Now is the best time for winter crop sowing of a line running from Vologda to Krasnoyarsk. (1000 GMT)

Tula farms delivered 230,000 metric tons of grain to date. (1100 GMT)

Nikolayev Oblast has exceeded the fodder plan. (1100 GMT)

Lithuania and Latvia have fulfilled the haymaking plan. Belorussia, Moldavia, Tajikistan and all Baltic republics have completed the first reaping of grasses

on non-irrigated lands in an organized manner. Almost 50 million metric tons of hay have been gathered in the country altogether; this is 77 percent of the plan. (1100 GMT)

Tajikistan has finished the chopping of cotton. (1500 GMT)

According to A. I. (Alyashev), chief of the USSR Ministry of Agriculture's main directorate for fodder procurement, farms in Lithuania and Latvia have organized fodder procurement well. The plan for sowing fodder crops has been fulfilled in these republics. There is too much low-quality fodder in Kursk, Yaroslavl, Kostroma, Kalininsk, Sverdlovsk Oblasts and in Kabarda-Balkar ASSR. The plan for building fodder-factories in the USSR for the first 6 months of the year has been fulfilled only by 27 percent. (1800 GMT)

Winter crop sowing is underway in Saratov Oblast along with harvesting and other fieldwork. (2005 GMT)

CSO: 1824/633



## MAJOR CROP PROGRESS AND WEATHER REPORTING

### MOSCOW CITES REPORTS ON SOWING, HARVESTING, PROGRESS

LD082204 Moscow Domestic Service in Russian 1500 GMT 8 Aug 84

[Text] Here is a report from the USSR Central Statistical Directorate on harvesting and sowing and a commentary by a specialist. On the country's collective and state farms grain and pulse crops have been reaped on 43 million hectares. The grain has been threshed on over 37 million hectares. In a commentary on these figures Boris Petrovich Parshin, deputy head of a main directorate of the USSR Ministry of Agriculture, stressed that the employees of the agro-industrial complex are striving to speedily harvest all that has been grown in the fields and to store it properly. The collective and state farms of Azerbaijan are an example of high organization in harvesting and procurement of grain. The farmers of Stavropol Kray, the Don, Crimean and Odessa Oblasts have successfully coped with tasks for delivering strong wheat. Machine operators in the Ukraine have begun harvesting groats. Collective and state farms are continuing the harvest of potato, vegetables, fruit and berries. This produce is being dispatched to the shops and also for processing. As well as harvesting farmers are laying the basis for the next harvest. Winter crops have been sown on an area of 370,000 hectares. Machine operators in Orenburg, Saratov, Kursk, Omsk and many other oblasts have prepared well for this work. However, farms in Bryansk, Vologda, Yaroslavl and Vladimir Oblasts, where the ideal period for sowing has arrived, are behind in soil preparation. The time has also arrived to prepare the fields for spring sowing.

CSO: 1824/633

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### VOROTNIKOV TOURS ORENBURG, ALTAY, BASHKIR REGIONS

PM091449 Moscow SOVETSKAYA ROSSIYA in Russian 9 Aug 84 First Edition p 2

[TASS report: "Meeting Today's Needs"]

[Text] V. I. Vorotnikov, member of the CPSU Central Committee Politburo and chairman of the RSFSR Council of Ministers, was in Orenburg Oblast, Altay Kray, and the Bashkir ASSR 3-8 August. During his meetings with workers at agricultural and industrial enterprises, leaders of party and soviet organs, and representatives of public organizations there was discussion of the further intensification of production, increasing labor productivity, lowering prime cost, improving the quality of products, making more rational use of state resources, and increasing initiative and efficiency in the light of the demands of the CPSU Central Committee February and April (1984) Plenums and Comrade K. U. Chernenko's speeches.

V. I. Vorotnikov visited kolkhozes, sovkhoses, and industrial enterprises. During his talks with workers, kolkhoz members, and specialists there was a discussion about organizing socialist competition, introducing advanced experience and [word indistinct] labor methods, and about the everyday life and leisure conditions of the working people.

V. I. Vorotnikov inquired about progress achieved in meeting the 11th 5-Year Plan targets, the construction of housing and sociocultural and consumer facilities, consumer goods production, work to raise the standard of arable farming and increase yields, land improvement construction, and local soviets' role in accelerating economic development.

V. I. Vorotnikov acquainted himself with the advanced experience of farms and rayon agroindustrial associations in implementing the Food Program, the progress of feed procurement and harvest preparation, the harvesting itself, and other agricultural work. It was noted that the main task now lies in insuring that a greater quantity of the crop available is harvested and stored and that a sound foundation for the future is laid. The importance of making efficient use of the economic potential created in the countryside was stressed.

Conversations were held at the obkoms and kraykom between V. I. Vorotnikov and members of the CPSU obkom and kraykom bureaus and the party and soviet aktiv. The following tasks were discussed: Improving the forms and methods of party

committees' organizational activity, stepping up their political enlightenment work at local level, strengthening discipline, enhancing responsibility, and mobilizing labor collectives to fulfill and overfulfill the targets for the current year and the 5-year plan as a whole. Stress was laid on the necessity of switching the economy over to intensive development based on the accelerated introduction of scientific and technical progress and the fuller utilization of internal reserves and pacesetters' experience.

V. I. Vorotnikov was accompanied during his tour of Orenburg Oblast by A. N. Balandin, first secretary of the CPSU Obkom, and A. G. Kostenyuk, chairman of the Oblispolkom; during his tour of the Altay Kray by N. F. Aksenov, first secretary of the CPSU Kraykom, and V. T. Khristenko, first deputy chairman of the Krayispolkom; and during his tour of the Bashkir ASSR by M. Z. Shakirov, first secretary of the CPSU Obkom, and Z. Sh. Aknazarok, chairman of the Bashkir ASSR Council of Ministers.

CSO: 1824/633

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### CONCERN FOR QUALITY OF GRAIN URGED

Moscow PRAVDA in Russian 13 May 84 p 1

[Article by V. Pankratov (Stavropol Kray)]

[Excerpt] The way is clear. It is necessary to take fuller advantage of the experience of the leading workers -- the farmers of Apanasenkovskiy, Sovetskiy, Kirovskiy and a number of other rayons. But alas, they, the best ones, are not the majority. It is rather the contrary. Many farms which engage in grain production sometimes forget about the quality of the grain. While under the 10th Five-Year Plan the average annual sales of strong wheats amounted to 593,000 tons in the kray, in the past 3 years they have decreased to 216,000 tons. This has also had an effect on the economic indicators. Thus the kolkhozes and sovkhoses of Blagodarnenskiy Rayon last year alone failed to receive 378,000 rubles as a result of this, Budennovskiy Rayon -- 224,000 rubles, and Arzgirskiy Rayon -- 176,000 rubles.

One of the reasons is the low level of agrotechnology. Frequently mistakes are made in selecting predecessors, the planting times are drawn out, and the optimal norms for placing seeds in the soil are not maintained. In some places they do not apply mineral fertilizers skillfully. When they are applied without taking into account the information from agrochemical research on a number of farms of Turkmenskiy and Levokumskiy rayons, the effectiveness of the fertilizers decreases.

In the kray there are 700,000 hectares which are lying fallow. This year the spring in the Stavropol area was cold and long. How are things going with the areas planted in grain crops after one of the best predecessors? Are they free of weeds everywhere? It turns out that a number of farms have been forced to do chemical weeding on the fallow fields just as on all the others. The care for the fallow fields was poor. Should there not be a reproach for the agrochemical service which allowed this sloppy work?

"Of course, we shall help in the fight against weeds," says the chairman of the kray Sel'khozkhimiya association, B. Plyasov. "We have stored up plenty of herbicides. But we should like for the volume of this work to decrease from year to year. This can be achieved only by advancing the art of farming."

This year the Sel'khozkhimiya association has reduced the rates for services to the kolkhozes and sovkhoses by 8 percent. If the yield is greater than planned, it will be possible to make up for the shortage of funds. It is understandable that the chemical workers are no less interested in the final results than the farmers themselves are. They are trying to protect the crop from losses and to provide for high quality of the crop growing products.

The socialist commitments of the farmers of the kray envision increasing the gross grain yield to 4.7 million tons and selling the state 1,960,000 tons, including no less than 1 million tons of strong and valuable wheats. In order to reach the earmarked goal, we need hard work from each grain grower and constant concern for a strong spike.

11772

CSO: 1824/538

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### ROSTOV FARMERS MUST IMPROVE AGRICULTURAL WORK

Moscow SEL'SKAYA ZHIZN' in Russian 21 May 84 p 1

[Article by Yu. Maksimenko (Rostov Oblast)]

[Excerpt] In recent years, because of serious violations of agrotechnology, many farms of Rostov Oblast have sharply decreased the production of high-quality grain. Agricultural agencies are now taking measures to make up for these arrears and advance the art of farming. They are making greater demands on managers and specialists of farms, agricultural scientific institutions and grain procurement enterprises for observance of the technology for raising the crops and fulfillment of the plan for procurements of strong wheats.

"Over the fields on the farms of the Don," the chief of the division for the use of aviation in the national economy of the Northern Caucasus Civil Aviation Administration, V. Kopylets, told us, "every day you will find up to 200 airplanes and helicopters. Aviators have come from Kazakhstan, Uzbekistan, the Baltic republics and Leningrad, Voronezh and other oblasts to help the grain growers to conduct nonroot top dressings of the planted areas and to fight against agricultural pests. This makes it possible to do agrochemical work quickly and well, and to lay a basis for raising a high-quality grain crop."

And in the agricultural administration we were told that this year the kolkhozes and sovkhozes have conducted spring root dressing promptly, and also summer nonroot top dressings of the planted areas and treatment of the soil against chinch bugs. The oblast has allotted more than 150,000 hectares of winter wheats for strong and valuable strains in order to produce high-quality grains. The work of tending the winter crops has been organized well on many farms of Zernogradskiy, Sal'skiy, Kagal'nitskiy, Yegorlyk'skiy, Proletarskiy and Orlovskiy rayons. For next year's harvest in the oblast they intend to plant up to 80 percent of the area for winter crops in strong strains. And this means that the Don workers will have to prepare the best seeds, accumulate more fertilizers, improve agrotechnology, and strictly observe zonal farmings systems.

But today the major and final test for the farmers still lies ahead. The grain harvest is approaching. As the experience of the leading farms shows, harvesting high-quality wheat requires reducing the time periods to 7-9

calendar days and strictly fulfilling the requirements in all stages of the technological process -- preliminary evaluation of the planted areas, preparation of these for mowing, threshing, cleaning of the grain on the threshing floors, and painstaking work on the part of all elevator services for conducting high-quality analysis and preservation of the grain that is delivered to the state grain bins. They are alarmed by the fact that a number of farms and rayons have not yet completed the repair of combines, grain cleaning machines, mechanisms, warehouse facilities and roads.

11772

CSO: 1824/538

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### INDUSTRIAL FARMING METHODS USED IN SOUTHERN KAZAKHSTAN

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 17 May 84 p 1

[Article (Chimkent): "By the Industrial Method"]

[Text] Every minute of work has become extremely important for rice growers of the Kzylkumskiy area, which was won away from the desert in the south of Kazakhstan. Many of them have mastered the industrial method of cultivating groat crops, which was tested by the experimental brigade of L. Shakurova from the Voskhod Sovkhoz. The collective, which last year harvested 60 quintals of rice per hectare from virgin land, has resolved to surpass this figure this year.

Everyone has his own position in the planting routine, which is especially important with large-group utilization of technical equipment. From a distance one can see five black squares -- the paddies on which the brigade's 20 soil cultivation and planting equipment are concentrated. The UAZ which had dropped slowly from the bridge across the main canal is turning sharply to the left: the field road stretches along the shore -- the strip of land which is a couple of meters wide is utilized efficiently.

"The team of Toktybay Imanaliyev is working here," says the sovkhov agronomist, T. Aldiyarov. "Each field worker has mastered two or three specialties. This is extremely important with the brigade contract. The collective performs all the work strictly within the time periods determined by agrotechnology.

"We have relied on large-group utilization of technical equipment, although its opponents assert that it causes confusion in planting and will contribute to excessive compacting of the soil," says the agronomist. "Shakurova's experimental brigade proved the opposite last year: with this method the soil suffered less from the heavy equipment. The entire cycle of field work on the paddy is done in one day, and there is less need for equipment and personnel to operate it."

The strong cold wind which is not typical of the southern regions did not bother the machine operators. They do the plowing and harrowing with a side wind, and then the furrow-forming equipment completes the formation of the



side wall. This tactic prevents the blowing away from the paddie of the light soil which is the most fertile.

The planting began a half month later than usual, but the farmers have entered into a struggle for a 62-quintal harvest -- 20 quintals more than planned.

The other collectives of the seven specialized rice growing sovkhoses of the oblast are also working this way now.

11772

CSO: 1824/546

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### DIFFICULTIES WITH UZBEK HARVEST RELATED

Moscow SEL'SKAYA ZHIZN' in Russian 22 Jun 84 p 1

[Article by A. Uzilevskiy: "The Harvest Has Begun"]

[Text] The grain has not ripened well everywhere in Uzbekistan this year. But this is cause not for contemplation, but for action. They are acting correctly in places where they do not complain about existing circumstances, but put the combines to work without delay and harvest the crop without losses. The threshings from the first 100,000 hectares of nonirrigated land in Kashkadarya, Samarkand, Dzhizak and Tashkent oblasts shows that even this year it is possible to obtain hundreds of thousands of tons of grain here.

Here is an area of 12,000 hectares in the foothill part of Akhangaranskiy Rayon. There are nearly 100 combines working in the fields.

"The grain is low," a combine operator from the Tashkonezavod imeni S. M. Budenniy Sovkhoz, V. Kayukov, points to the stubble, "but the threshing is fairly good. I have increased the daily output to 12 hectares."

We walk through the stubble along with the sovkhos agronomist. The lowest cut and a very clean harvest. All the machine operators of the rayon are trying to ensure high quality. The sets of harvesting equipment are concentrated in teams and are in the fields from dawn to dusk. During the night the technical service teams prepare the combines for the next day. All the conditions necessary for the machine operators to rest are to be found in the field camps.

Yes, it was difficult to grow grain on nonirrigated land this year. But regardless of what came up, it had to be harvested in the shortest possible periods of time. Letting it stand too long exacerbates the situation -- the overdry spike begins to shed. But this is not taken into account everywhere.

Correctly evaluating the difficulties that have arisen on the nonirrigated land, the farms of the irrigated zone are taking measures to increase the yield of grain from irrigated land. The initiative of the Sukhandarya workers -- to obtain two yields of grain crops from areas that are provided with water -- is being embodied in concrete actions. Thus on the Pogranichnik Sovkhoz in Gagarinskiy Rayon the brigade of Eshmamat Buriyev and other collectives have

threshed 55 quintals of winter wheat per hectare of irrigated land. Without wasting an hour here, they reseeded the fields and planted them in corn. In the autumn they will receive from the second crop at least the same amount of grain, or a total of 110 quintals. On the Kolkhoz imeni Kuybyshev in Angorskiy Rayon, after the winter crops were harvested the land was loosened and irrigated. Within two days a second crop was planted, and now vigorous shoots of corn for grain can be seen throughout the entire area.

Now that the crop has ripened it is important to account for every hour. The tempo of the harvest work depends primarily on the output from each set of equipment. In terms of this indicator, Kashkadarya and Dzhizak oblasts are in the lead. Since the first days of the harvest, the name of Mudoris Galiyev from the Nishan Sovkhoz imeni Ibn Sina has not been removed from the honor roll. Along with his assistant, his son, Idris, each day he harvests the crop from 15-18 hectares and threshes 600-700 quintals of grain from each. This family team has already sent 4,000 quintals of grain to the threshing floor. During the second 5-day period the Galiyevs are retaining the Challenge Red Banner. After the combine has passed here they gather up the straw, tractors are used to plow the land, and sprinklers send water into the furrows. As soon as the soil dries out the planting team arrives to put the corn seeds in place.

11772

CSO: 1824/546

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### WEATHER AFFECTS CHIMKENT AGRICULTURAL PLANS

Moscow SEL'SKAYA ZHIZN' in Russian 29 Jun 84 p 1

[Article by A. Utyaganov (Chimkent Oblast)]

[Excerpts] The weather has made significant changes in the plans of the farmers in Chimkent Oblast. Even in the flat southern zone the grains have ripened at various times, and extensive maneuvering of the technical equipment has become one of the most important devices in the harvest.

Almost a half million hectares -- such is the area of the grain fields on the farms of Chimkent Oblast this year. And 9 out of every 10 hectares are on land with no irrigation at all. Large transformations have taken place in grain production here. The oblast, which until quite recently has been unable to satisfy its own needs, has become a large producer of commercial grain. Just during the past 3 years, in spite of the fact that two of them were extremely dry, 1,518,000 tons of grain were sold to the state -- 470,000 more than the assignment called for.

At the basis of these changes was the introduction of a scientifically substantiated system of farming for each zone. And the fruitful results of this large amount of work are now especially evident from the example of the breeding farm imeni Zhdanov. They have changed over to a soil protection system on all 20,000 hectares of grain fields here. The strain Bezostaya-1, which was previously planted on the entire area, has been replaced by a new, more drought resistant strain from local selection, Krasnovodopadskaya-210. The barley has also been updated -- they have introduced the new, very promising strain Yuzhnokazakhstanskiy-43. An area has been constructed for aircraft of agricultural aviation, and there is also a storehouse for fertilizers. The entire area of winter crops has been topdressed with ammonium nitrate in a dose of 25 kilograms of active substance per hectare. And the results of this work can be found in the full hoppers of the combines.

There has been no rain since April on any of the nonirrigated zone of the oblast, and the farmers obtain each ton of grain with a great deal of difficulty.

A member of the Politbureau of the CPSU Central Committee, the first secretary of the Central Committee of the Communist Party of Kazakhstan, Comrade D. A.

Kunayev, has become familiar with the course of the harvesting of the crop. At a meeting of the party aktiv that was held yesterday they thoroughly discussed questions of further increasing grain production in the oblast, especially corn and rice, and also the fulfillment of plans for selling animal husbandry products to the state.

Grain is being sold by farms of six rayons. They have put a stop to the losses. The grain is being mowed with the blade set low. And if one takes into account that a large part of the area planted in grain crops is on sections with uneven relief, one can understand that this year's harvest, when every spike is heavy, requires especially high mastery from the machine operators.

The grain has already been harvested from 90,000 hectares of fields in the oblast. In terms of the rates of the harvest, leading positions are held by farms of Leninskiy, Saryagachskiy and Chardarinskiy rayons. Tens of thousands of tons of grain have already been sent to the procurement points, and the daily sales volume has exceeded 6,000 tons. This year workers of Chimkent Oblast have every intention of fulfilling the five-year assignment for the sale of grain to the state.

11772

CSO: 1824/546

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### WEATHER READIES KUBAN CROPS FOR HARVEST

Moscow SEL'SKAYA ZHIZN' in Russian 27 Jun 84 p 1

[Article by Yu. Semenenko (Krasnodar Kray): "The Kuban Begins the Harvest"]

[Excerpts] After prolonged rains and cool weather which contributed to the swelling of the grain, hot and dry weather has come to the Kuban. It has accelerated the ripening of the grains, which occupy 1,813,000 hectares. As usual, the first to ripen were winter barley and peas. In the kray they call the harvesting of these crops a dress rehearsal for the harvesting of the main food crop -- winter wheat.

The fields of ripe grain have called the agricultural workers into the fields and placed on the agenda questions of accelerating the harvest, utilizing technical equipment efficiently, and eliminating losses of the harvest. The kolkhozes and sovkhoses of the kray and their partners in the agro-industrial complex have a great material and technical potential at their disposal. All of their technical equipment has been joined together into harvest-transport complexes and detachments. The main thing now is to give it a full load.

Dinskiy Rayon is setting the tone in the competition. Here, according to the work plan, they intend to mow the barley and peas in two days, and the wheat in 4 days, and they intend to thresh them in 9 calendar days. Two shifts of machine operators have been assigned to all of the equipment, which makes it possible to utilize the equipment on two shifts until the morning dew forms. Dispatcher communications contribute to highly productive work.

Agronomic diagnosis of the fields helps to fight against losses. As we know, barley and peas require special treatment. If one is in too much of a hurry the grain turns out puny, and if one waits too long it falls to the ground. This is why it is so important to find the golden mean.

Harvest-transport complexes and detachments are operating efficiently on the majority of farms of the Kuban. Even deep into the night the lights do not go out on the fields, threshing floors and village roads of Ust'-Labinskiy, Kanevskiy, Yeyskiy, Novokubanskiy and other rayons. The harvest is proceeding under difficult conditions. The grain has grown high and dense. This has required the corresponding adjustment of the components of the reapers and combines, and the equipment must not move too fast. The barley, peas and

wheat have lodged severely on 200,000 hectares. But this has not stopped the grain growers. They are using excentric reels with stalk lifters as well as other adapters, and they are harvesting the spike and pulse crops while moving in a single direction.

The harvest in the Kuban is gathering speed. Barley and peas have been mowed from the first 200,000 hectares. One-third of them have been threshed. The harvest work is shifting to the areas planted in wheat. Many farms have made a fairly good start. Unfortunately, there are also disturbing interruptions caused by sudden starts and delays in repairing machines and assigning crews to them. The harvest work is being prolonged by several farms of Adygeya and Uspenskiy, Beloglinskiy, Otradnenskiy and a number of other rayons. The work is being held up everywhere because of a shortage of transportation, which is late in coming from the cities and rayon centers. For instance, the 6th brigade of that same Kolkhoz imeni Kirov in Korenovskiy Rayon, which is working under a contract, received only one truck. And there are eight combines in the field. Naturally, they frequently stand idle. So far not all rayons of the Kuban have completed the preparation of grain receiving points, threshing floors and roads. The harvest will not forgive delays and disorganization. It is necessary to eliminate the shortcomings more rapidly.

11772

CSO: 1824/538



## MAJOR CROP PROGRESS AND WEATHER REPORTING

### BRIEFS

**SPIKE CROPS--Chimkent Oblast--**Farmers of Chimkent Oblast have fulfilled the 4-year plan for sale of grain to the state in 3 years. This year they intend to fulfill their assignment for the five-year plan. The early spike crops have already ripened in the south of the oblast. The farms of a number of rayons are beginning to harvest the grains. Agricultural workers of Saryagachskiy Rayon were the first to take the technical equipment out into the fields. Machine operators of the Darbaza, Alimatauskiy and Syrdar'inskiy sovkhoses and other farms are now conducting mass mowing and threshing of grain crops. Competition for the rates and quality of the harvesting work was extensively developed from the very start of the harvest. This year grain growers of the rayon will have to harvest spike crops from 74,000 hectares. For the harvest period all farms have organized harvest-transport complexes, developed conditions for socialist competition and provided for two-shift operation of technical equipment. Agricultural workers are filled with resolve to gather the crops that have been raised in shorter periods of time and without losses, and to make a worthy contribution to the implementation of the Food Program. [Text] [Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 21 Jun 84 p 1] 11772

**SPRING CROPS--**During these days just before May the kolkhoz and sovkhos workers are standing labor guard on the fields and farms. They are directing all their mastery toward planting spring crops at the best agrotechnical times and successfully completing the wintering of cattle and breeding of sheep. The first in the republic to complete the planting of grain and pulse crops (not including corn) were the farms of Issyk-Atinskiy and Panfilovskiy rayons. This work is being completed in Osh Oblast and in the Chuyskaya valley. Following the kolkhozes and sovkhoses in the south of the republic, farmers have begun to plant corn in the Chuyskaya valley. Many brigades and teams cultivate this crop under collective contracts. They are competing to obtain a 60-quintal yield of grain, but the Uzgen workers have resolved, as they did last year, to gather an average of 100 quintals. Preplanting cultivation of the soil has already been completed on the majority of the areas. The work front is being expanded on the cotton and sugar beet plantations. In Aravanskiy, Leninskiy and Bazar-Kurganskiy rayons almost all the allotted area has been planted in cotton. [Excerpts] [Frunze SOVETSKAYA KIRGIZIYA in Russian 25 Apr 84 p 1] 11772

**MASS THRESHING--Osh--**Farmers of southern Kirghizia have begun mass threshing of wheat and barley. Machine operators and procurement workers have prepared well for the harvest. This year farmers of Osh oblast have resolved to obtain



no less than 40 quintals of grain from each irrigated hectare. [Excerpt] [Frunze SOVETSKAYA KIRGIZIYA in Russian 16 Jun 84 p 1] 11772

PAMIR RIVERS--Dushanbe--The long, cold spring in Tajikistan and then the sharp rise in temperatures caused severe melting of the snows of the Pamir area, which is unusual for this time of year. The small Obikhumbo River, which residents of the rayon center of Kalaikhum usually wade across, has been changed into a turbulent stream. All residents of the rayon center were on their feet at midnight. The river was flowing through the streets, and the water was coming so fast that the residents barely had time to take their children out of the houses. The raging current, moving with the speed of a train, left dozens of families without a roof over their heads that night. Such a flood had never been seen here before, according to hydrometeorologists. The average norm of discharge of water into the river for many years had been about 20 cubic meters per second, but in the middle of the day on 4 June it exceeded this amount almost 13-fold! Helicopters came to the aid of the residents, delivering tents, food and medications to the rayon center. [Text] [Moscow TRUD in Russian 6 Jun 84 p 4] 11772

BEGINNING OF HARVEST--Kurgan-Tyube--The farms of the southern rayons of Tajikistan have begun to harvest the barley and wheat. This is being done by comprehensive mechanized detachments according to flowline technology. The team of M. Choriyev from the Kolkhoz imeni 50-letiya SSSR in Kabodiyenskiy Rayon, for example, is threshing 40-45 quintals of excellent grain from each hectare. The grain is sent immediately to the threshing floor where it is cleaned and dried, and then it is shipped off to the state. The cleared fields are then cultivated again, fertilized and planted in corn. The grain fields are gladdening the hearts of farmers with high yields this year in Kumsangirskiy, Kolkhozabadskiy, Shaartuzskiy and other rayons of the Vakhsh valley. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 8 Jun 84 p 1] 11772

GRAIN HARVEST--The hum of motors can be heard on the grain fields of the southern rayons of the republic. Combines have gone out onto the irrigated fields that are planted in barley and wheat. Grain growers of Vakhshskiy and several other rayons have also begun to harvest grain crops. On all the farms of Kurgan-Tyube Oblast, the land from which the barley and wheat have been removed will be planted in corn for grain and silage. [Excerpts] [Dushanbe KOMMUNIST TADZHIKISTANA in Russian 6 Jun 84 p 1] 11772

FOOTHILL HARVEST--Dushanbe--The harvesting of grain crops has been started on the foothill farms of Tajikistan. Farmers are exerting all efforts to utilize the technical equipment efficiently and not to allow losses of the crop. Workers of the republic's agro-industrial complex intend in the year of the 60th anniversary of the founding of the Tajik SSR and the Communist Party of Tajikistan to fulfill socialist commitments -- to produce 320,000 tons of grain -- more than last year. [Text] [Moscow TRUD in Russian 20 Jun 84 p 1] 11772

**STRONG GRAIN--Krasnodar--**Under the 10th Five-Year Plan the Kuban had the largest proportion of strong grain in the wheat sold to the state in the country. But in past years, because of violations of agrotechnology for tending the planted areas, the proportion of grains that improve ordinary grain has dropped appreciably. This year energetic measures are being taken to eliminate these shortcomings. On practically all of the area planted in wheat they have assimilated agrotechnological devices which guarantee obtaining valuable grain. One or two top dressings have been conducted on all of the areas planted in this valuable crop. The wheat has been treated against leaf beetle on 371,000 hectares. Now aircraft from agricultural aviation are applying a phosphorus and potassium extract to fight against fungal diseases, and they are fighting against the worst enemy of strong grain -- the chinch bug. This work has already been done on more than 250,000 hectares. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 10 Jun 84 p 1] 11772

**KUBAN HARVEST--Krasnodar--**The first thousands of tons of winter barley have been delivered from the fields to the mechanized threshing floors of the farms in the southern rayons of the Kuban. Here the grain is dried, processed and prepared for sale to the state. The warm weather is accelerating the ripening of the grains on the Kuban steppe. The harvest is gathering speed. Machine operators of Severskiy, Krymskiy, Anapskiy and other rayons have begun to pick up the swathes, reducing the time interval between mowing and threshing. In order not to allow losses of grain, machine operators are conducting the harvest work especially carefully on the areas where the barley has lodged after rain storms and showers. All of the machines are equipped with devices for harvesting lodged grains. [Text] [Moscow TRUD in Russian 22 Jun 84 p 1] 11772

**INSPECTION OF EQUIPMENT--Stavropol--**Stavropol grain growers are prepared to conduct the harvest according to effective flowline technology. The inspection of the technical equipment for the quality of repair and adjustment has been completed in the kray. All of the more than 14,000 combines that have been allowed out onto the grain fields are concentrated in 822 large comprehensive detachments. Each mechanized subdivision also includes sets of tractor equipment for removing the straw from the fields and loosening or plowing for subsequent planting of winter crops. This will make it possible not only to remove this year's harvest quickly, without the slightest losses, but also to lay a basis for an abundant crop next year. All of the machine

and tractor detachments have also formed teams for cultural and domestic service for the machine operators -- including mobile kitchens and cars for recreation. A two-shift work schedule has been established on the majority of kolkhozes and sovkhoses. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 20 Jun 84 p 1] 11772

STAVROPOL GRAIN--Stavropol--The first sets of harvesting equipment went out onto the grain fields of the Stavropol area today. The prize in the name of the famous machine operator of the Stavropol area, Hero of Socialist Labor, and a virgin land veteran, F. Markov, for the results of the harvest will go to those of the 28,000 combine operators and their shift assistants who achieve the best results in mowing and threshing. Three decades ago here, in the Stavropol area, since the beginning of the assimilation of the virgin and long-fallow land, they have introduced almost two-thirds of a million additional hectares which had never seen a plow before. Since that time the local kolkhozes and sovkhoses have managed to considerably increase the average annual grain production. This year too the machine operators of the farms have raised abundant grain. The collective commitment of the farmers of the kray is to pour no less than 1,960,000 tons of grain into the state grain bins during the course of the harvest. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 27 Jun 84 p 1] 11772

SPRING CROPS--Rostov-on-Don--Farmers of the Don area are completing the planting of spring crops. The seeds have been placed in the soil on an area of 2.5 million hectares. [Text] [Moscow TRUD in Russian 19 May 84 p 1] 11772

RAINBOWS OVER FIELDS--Rostov-on-Don--Land reclamation workers of the oblast have watered the Don fields earlier than usual this year. With the help of sprinkling equipment the farms are irrigating the winter wheat and perennial grasses. This work will have to be done on 130,000 hectares. A total of 391,000 hectares will be irrigated. Sprinkling machine operators have actively begun growing period irrigations of winter wheat and alfalfa on the farms of Volgodonskiy, Martynovskiy, Veselovskiy, Neklinovskiy, Proletarskiy and other rayons where the irrigation systems and power pumping equipment have been reliably prepared. More than 2,000 hectares receive moisture during a day. The machine operators are striving to use more effectively the powerful Kuban, Fregata and Dnepr sprinklers. The kolkhozes and sovkhoses of the oblast have expanded the areas assigned to contract brigades and teams. [Text] [Moscow SEL'SKAYA ZHIZN in Russian 12 May 84 p 1] 11772

WINTER CROP HARVEST--Ordzhonikidze--The formation of mechanized complexes, detachments and technological teams for harvesting winter crops have been created on the farms of the steppe and foothill regions of North Osetia. The activity of the 120 consolidated brigades is based on the brigade contract. The crews will be working on two shifts according to the watch method. This is achieved as a result of prompt training of the shift of young machine operators in rural vocational and technical schools and divisions of Goskomsel'khoztekhnika. [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 3 Jun 84 p 1] 11772

RIPE GRAIN--Makhachkala--The winter grains have ripened on the fields of Dagestan. The machine operators have begun to reap the barley. The grain

fields of the autonomous republic are located in various climate zones -- from the maritime steppes to the foothills of the Northern Caucasus -- and the crops here ripen at various times. Taking these peculiarities into account, special harvest tactics have been developed for each area. On certain sections the spike crops were low growing and thin, and the wheat and barley lodged from the rain and wind. Therefore a special service was created for checking on the ripening of the grains. It keeps track of the condition of the planted areas and the degree of ripeness of the grain crops, and it recommends the method for harvesting -- direct or individual -- as well as the sequence of work on the fields. Thus, at its suggestion, the first to open an account for mown hectares were the sovkhoses located in the zone of the Canal imeni Oktyabrskaya revolyutsiya. The machine operators equipped the combines with special devices for harvesting the lodged grains. In Kizilyurtovskiy Rayon they are obtaining 40 quintals of grain per hectare. This was achieved because of the cooperation between the farmers and the land reclamation workers. The Poliv rayon production association has been in operation here for several years now. It performs all operations related to irrigation, the purification network and the assimilation of virgin areas. The earnings of the land reclamation workers are now dependent on the harvest. This season all farms of the kray are changing over to flowline technology for harvesting spike crops for the first time. The technical equipment is combined into comprehensive detachments and the combines are staffed with crews for work on two shifts. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 20 Jun 84 p 1] 11772

CORN HARVEST--Stavropol--The mechanized detachment from the kolkhoz 40 let Oktyabrya, led by A. Bezrodnny, last year achieved the highest harvest of corn grain in the kray--59.9 quintals on each of 400 hectares. The net income from the sale of corn grain to the state was 546,000 rubles. The cost of a quintal was 4 rubles 82 kopecks--labor expenditures on production--50 minutes. Recently the brigade was awarded the rotating prize "Golden Corn Ear of Stavropol", the pennant of the RSFSR Ministry of Agriculture and bonuses. For several years now the scientists of the Stavropol Selection-Experimental Station of the All-Union Scientific Research Institute of corn have concluded an agreement to help the kolkhoz detachment. With the participation of senior scientific associate Ya. Strel'nikov, highly productive systems were introduced which allow for carrying out several operations in one pass. This year the corn growers promised to increase their success--to gather not less than 60 quintals of grain from each hectare. "The word of the corn growers has been strengthened by precise accounting", says kolkhoz chairman A. Vinnikov. "Each trifle was foreseen. Now the routes for the movement of machines from the harvest have been established, the corn cleaning line has been repaired and the new highly productive dryer is being readied." The care for the harvest area of all cultivated crops is being disseminated on all the farms of Stavropol. The kolkhoses and sovkhoses of Petrovskiy, Sovetskiy, Patovskiy, Kochubeyevskiy and other rayons have organized and are carrying out interrow cultivation. The slogan of the best mechanized links is "the cleaner the field the greater the harvest." [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 8 Jun 84 p 1] 11772

CSO: 1824/538



## POST HARVEST CROP PROCESSING

### GRAIN TRANSPORT PREPARATIONS IN KAZAKHSTAN

#### Trailer Shipment to Elevators

Alma Ata KAZAKHSTANSKAYA PRAVDA in Russian 21 Jun 84 p 2

[Article by T. Shandrov, secretary of the North Kazakhstan Obkom of the Communist Party of Kazakhstan (Petropavlovsk)]

[Text] Even today it is possible and necessary to determine the optimal ratio between expenditures and a high final result for the 1984 harvest, to plan for skillful utilization of transportation, loading-unloading and other mechanisms, and to achieve highly productive operation of these.

This is the task we are setting for the party committees, the rayon soviets of people's deputies, and the managers of automotive enterprises, sovkhozes and kolkhozes of the oblast. "Economic work," noted Comrade K. U. Chernenko at the April (1984) Plenum of the CPSU Central Committee, "like effective control over it, requires concreteness and efficiency."

Now is exactly the right time to analyze the results of last year's harvest, to compare the results that have been achieved with the best results of the 10th Five-Year Plan, to account for blunders, and, taking advantage of the experience of the best, to teach others advanced methods of management of the transportation conveyor.

Many years ago the party obkom began to search for ways to introduce advanced forms and methods into transportation service for agricultural production. We turned to the recommendations of the Kazakh Scientific Research and Planning Institute of Automotive Transportation concerning the utilization of combination trailers, and later, concerning the portion method. The essence of the combination trailer method consists in that a two-axle truck trailer, a Belarus' tractor and a truck tractor are assigned to a group of combines. The grain is loaded from the combines onto the truck trailers, which are towed to the nearest section of road or transportation, where a truck train is formed. We first used this technology in 1969 on a number of sovkhozes in Sergeyevskiy Rayon. The results were good, and by the next year there were already 12 combination trailer brigades working. The need for trucks is reduced to one-third and less, their labor productivity is doubled, and labor productivity on the combines increases by 20-25 percent.

The rayon party committee has supported the innovators from their first steps. But the difficulty consists in that the sovkhoz managers did not want to let go of several trucks at the very busiest time -- what if something should happen? But the work experience on the Gorodetskiy and Yubileyny sovkhozes supported us. In 1972 the Kazakh SSR Ministry of Automotive Transportation and the Ministry of Agriculture held on the Gorodetskiy sovkhoz in Sergeyevskiy Rayon a republic seminar-conference on further introduction of advanced methods of shipping agricultural products, which was a good school for our managers.

The portion method of shipping grain from the combines was first used in 1977 on the Sovkhoz imeni 50-letiya VLKSM in this same rayon. In this case the grain is unloaded from the hopper of the combine into trailers which are placed on the field or on the road in strictly established places.

The experience of many seasons of harvesting work in Sergeyevskiy Rayon shows that with the combination trailer method one truck with trailers services 2.5 combines, while with the portion method, it can serve 2.2. The average daily output per truck with the combination trailer method is 62 tons, and with the portion method -- 81 tons. The cost of shipping the grain also decreases by 36-38 percent. The introduction of these methods in 1983 in the cargo automotive administration alone produced an economic effect of 160,000 rubles.

Now the Sergeyevskiy automotive base serves six sovkhozes instead of two as it did at the beginning of the experiment, and it does this with the same number of vehicles. All of Timiryazevskiy Rayon and a large number of sovkhozes in Leninskiy, Mamlyutskiy and Presnovskiy rayons have been changed over to the combination trailer method. As an example, one can use the following fact. While previously the Timiryazevskiy and Sergeyevskiy workers used 1,000 vehicles for the harvest, now they use only 600.

But in and of themselves neither the combination trailer nor the portion method solves the problem of efficient utilization of transportation: if we do not deal with problems of shipping grain comprehensively, what we have gained in one place can be lost in another. Therefore we have turned to the creation of centralized management of the harvest-transport process. Operations staffs are being created in the rayons. They include workers from transportation enterprises, the agricultural administration, procurement and road organizations, communications, the state automotive inspection ... The work is being done according to a general plan which is approved by the raykom bureau. In keeping with this, the automotive fleet is distributed among the sovkhozes, harvest-transport complexes are formed, and centralized detachments are created for shipping grain from the threshing floors to the grain receiving points.

When there is a clear-cut plan and a well arranged system of labor organization, the rest of it is up to the people who will be implementing all this. In the final analysis, personnel decide the outcome of any matter, and their education is the most important part of party work. Among the managers of automotive enterprises who for the third five-year plan in a row have successfully mastered advanced methods of organizing the transportation

process and who are communists are the chief of the Sergeyevskiy automotive transportation enterprise, N. Rassolenko, the chief of the Petropavlovsk automotive convoy 2559, V. Meshcheryakov, and the chief of ATP-1, V. Kavzalov. There are many drivers whose experience deserves to be widespread. For example, the brigade of N. Zubanov, which consists of eight ZIL-130 trucks and 20 trailers, provided full service under a contract for the third division of the Stupinskiy Sovkhoz where there are 7,500 hectares planted in grain crops and 800 in silage crops. The first truck trains with handling capacities of 70 tons have appeared here. They were initiated by the winner of the state prize of the Kazakh SSR, G. Cherepanov. During the past harvest alone he transported about 5,000 tons of wheat from the threshing floors of the Stepnoy and Dmitriyevskiy sovkhozes, and this is practically half of the state plan.

The work experience of the truck drivers of the Mamlyutskiy ATEP and elevator has shown that it is possible with a smaller number of truck trains, without idle time at the threshing floors and the elevator, to ship considerably more grain than one does with hourly schedules and centralized automotive detachments.

To multiply the experience that has been accumulated and to make it a system for the organization of the grain harvest in the oblast -- this is the way we understand the requirement of the day. Last year we already had 190 brigades from 53 kolkhozes and sovkhozes, that is, almost every third farm, working according to the combination trailer and portion methods. For the 1984 harvest 195 of these collectives will be created in the oblast. But far from everything has been done yet. And here I should like to discuss those parts of the management mechanism which require improvement. These include, first of all, the system of payment for the shipment of grain. Today we settle with the drivers only for the tons that have been shipped and the ton-kilometers, regardless of how many trucks were used on the sovkhoz or how much time they stood idle during loading and unloading. Although they are supposed to be paid for idle time, somehow it is impossible to recall when this has been done. Now about planning advanced practice. While from year to year the truck drivers are increasing the numbers of combination trailer brigades, not one plan for technical development of agricultural administrations mentions a word about them, nor do they mention hourly schedules for shipping grain. The republic Ministry of Agriculture should apparently think about this.

The transportation conveyor is also being held up by the lack of good loading and unloading equipment, and the weighing equipment is not developed well enough either. Large truck trains are used for the harvest, but they frequently stand idle too long because they cannot be handled quickly at the threshing floor and elevators. There is an insistent need to accelerate the output of highly productive models of this kind of technical equipment.

The condition of certain roads does not meet the corresponding requirements. Party, soviet and management agencies are trying to solve this problem in the next 2 or 3 years so that the roads to all the central farmsteads of the kolkhozes and sovkhozes will be paved and the roads within the farms will be put into the proper condition. We have not solved all problems related to material and technical support for general purpose automotive transportation so that it can provide for highly productive work in shipping agricultural

products. Thus, for example, from year to year there is a shortage of tires, engines, and parts for coupling and the piston group. And this impedes the progress of the automotive fleet toward technical readiness.

In implementing the decisions of the 26th CPSU Congress concerning the reduction of transportation expenditures and increased effectiveness of the utilization of means of transportation, the party obkom is constantly directing the attention of party organizations and managers toward the introduction of progressive methods of shipping grain, and it is taking all possible measures for extensive dissemination of these. There are many concerns for all partners in the agro-industrial complex, but it is important for their efforts to be directed toward a single goal -- a high final national economic result.

#### Cooperation of Partners

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 27 Jun 84 p 1

[Article by V. Kharchenko, chief of the division for production and wages of the republic committee of the trade union of agricultural workers]

[Text] Grain harvesting is beginning in the republic. Today the partners in the agro-industrial complex are sharing the concerns of agricultural workers for the harvest. Branch trade unions and the ministries of agriculture, the fruit and vegetable industry, procurements, the food industry, automotive transportation and highways and the republic Goskomsel'khoshtekhnika have concluded an agreement for labor cooperation for the period of harvesting and preparing products.

In keeping with the agreement, all oblasts, rayons, sovkhozes and kolkhozes are now holding inspections for readiness of the harvesting equipment, automotive transportation, enterprises of the Ministry of Procurements and the processing industry, and the condition of the highways. The trade unions in conjunction with the economic agencies are developing the conditions for socialist competition.

#### Harvest Transportation

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 3 Jul 84 p 1

[Article by S. Plokhov, candidate of technical sciences]

[Text] The trucks in the harvest are the connecting link of the complex harvest conveyor. They ship the entire gross grain yield, first from the combines to the threshing floor, and then to the grain receiving points. The need for transportation during the harvest period is extremely great. In order to satisfy it, in spite of difficulties, vehicles are being sent to rural areas from facilities that are in operation hundreds and thousands of kilometers away. The preparation and the relocation of every thousand trucks costs the national economy 0.6-1.8 million rubles. In our republic about 80,000 trucks are being sent to help in rural areas.



But is it not possible to reduce the immense annual expenditures? This problem is especially crucial now because of the fact that the time periods for the harvest have been reduced to two-fifths - one-third of their previous length. About 20 years ago specialists suggested replacing the group method of operation of the vehicles with the large-group method, team organization of labor with brigade organization, and trucks with truck trains. Thus originated the combination trailer method of shipment. Here the transportation process is divided into two parts: the grain from the combines which are operating according to the large-group method is gathered into trailers that are pulled through the fields by tractors, and on the roads, by trucks.

The new method was tested when harvesting the grain crops, green mass of corn and sugar beets. And everywhere it contributes to more productive operation of the combines, a reduction of the number of trucks to one-third - one-fifth the previous number, and a reduction of expenditures on shipments by 30-35 percent. Among the first to introduce the innovation were the Gorodetskiy, Yubileynyy, Oktyabr'skiy and Prinshimskiy sovkhoses in Sergeyevskiy Rayon in North Kazakhstan Oblast. This enabled them to release about 200 trucks from the harvest. Soon all of the farms of Sergeyevskiy Rayon had followed the example of these sovkhoses. In 1972 on the Sovkhoz imeni Chkalov in Karaganda Oblast the portion method of shipments was tried for the first time. With it the grain was loaded from the combines after they had traveled the same working path, regardless of how full the hopper was. The results turned out to be promising. The idle time of combines waiting for the next truck to arrive was fully eliminated, the productivity of the combines increased by 24 percent, and the distance traveled by the trucks on the fields was cut in half. The technological solution that was found releases the tractors from the harvest-transport complex and contributes to the development of the brigade contract with a simultaneous reduction of the accounting for the work of each combine operator or truck driver. Then the portion method was applied on the 50 let VLKSM Sovkhoz in North Kazakhstan Oblast and the Vedenovskiy in Kokchetav Oblast.

With time the combination trailer and portion methods received unanimous approval from combine operators and truck drivers. But the rates of their introduction in the republic remain extremely low. For example, last year the combination trailer method included only 8 percent of the grain harvesting combines, and the portion method -- 4 percent. But still, even with these small percentages, it was possible to reduce the number of employees working with the trucks in the harvest by 7,000.

Numerous examples show that progressive methods of shipping make it possible to reduce the time periods for threshing by 5-7 days and to save 2-4 rubles on each ton of gross yield of grain. Delay in introducing them entails irreplaceable losses, which amount to tens of millions of rubles in Kazakhstan alone.

But why is it so difficult for these methods to make their way through? Let us turn to recent facts. In 1982 the scientific and technical council of the Ministry of Agriculture of the Kazakh SSR listened to information about them, but did not make a decision to accelerate their introduction. During the past

13 years the ministry has not issued a single recommendation regarding the portion method for agronomists, brigade leaders or team leaders.

The advantages of the new methods of shipping grain are obvious. They have high technological reliability, and they make it possible to utilize the technical capabilities of the trucks and tractors completely in keeping with their intended purposes. Moreover, the portion method guarantees the fulfillment of the work cycle by the combines in a shorter period of time, precludes disorderly movement of the vehicles through the fields, and thus protects the soil from the harmful effects of the truck wheels which, as we know, reduce the yield by 5-20 percent. But even today they are undeservedly disregarded.

The progressive methods require a comprehensive approach, changes in the working conditions on the fields, renovation of the threshing floors, the development of a road network, and a reduction of the number of transshipments. All expenditures on their introduction are recouped quickly and with money to spare. In Kazakhstan alone the introduction of the combined trailer and portion methods everywhere would make it possible to release 50,000 trucks from the harvest, to save no less than 12,000 tons of truck fuel, and to preserve the fertility of the soil for future crops.

11772

CSO: 1824/550

## POST HARVEST CROP PROCESSING

### RAIL TRANSPORTATION PROBLEMS AIRED

Moscow SEL'SKAYA ZHIZN' in Russian 13 Jun 84 p 2

[Article by Yu. Nikol'skiy, chief of the transportation division of Glavnechernozemvodstroy of the USSR Ministry of Land Reclamation and Water Resources: "On a Truck Alongside the Railroad"]

[Text] I was prompted to address this subject by the decree of the CPSU Central Committee and the USSR Council of Ministers, "On Increasing the Effectiveness of the Utilization of Automotive Transportation Means in the National Economy, Stepping Up the Fight Against Write-Ups When Shipping Cargo by Automotive Transportation and Providing for Preservation of Fuel and Lubricants."

We in Ryazan Oblast have the Shilov Stroyindustriya Association. The complex of plants, which was put into operation in keeping with the decisions of the party and government concerning the development of the nonchernozem zone of the RSFSR, now performs its share of the work envisioned by the USSR Food Program. During this period the enterprise collective has had many concerns, and in general it is just now gathering force, being formed and being stabilized with the output of its products.

The first thing they had to deal with at the site of the plant for reinforced concrete items was the raiiside warehouse which was packed full of prepared products: there were not enough railroad cars. During 1983 only 56 cars were received for loading from the fleet of the Ministry of Railways. In other words, the plan for rail shipments is basically being fulfilled with cars that belong to the association. Therefore the ministry has also reduced the limit on the cars to a minimum.

As a result, of the overall volume of products we manufactured in 1983 only 8.3 percent were shipped by rail, and 89.6 percent were shipped by trucks. And little has changed during the past months of this year. But where do the drivers take the prefabricated reinforced concrete items when they leave the village of Shilovo using public gasoline. The trips are not short, but they all run along the railroad: to Vladimir, Tula, Kaluga, Ivanovo, Orel, Bryansk, Moscow and Yaroslav oblasts.

This forced change from one kind of transportation to another, of course, is not cheap. But when difficulties arose with the provision of trucks, more than 9,000 tons of unsold prefabricated reinforced concrete items accumulated at the warehouses of the Shilovo association. And yet these products were vitally needed by rural land reclamation workers.

We inspected another unloading site -- near the plant for keramzit gravel -- along with the deputy general director, Leonid Ivanovich Bibley. The picture was the same: there was a mountain of prepared products that would not fit into the technologically suitable space. But here the reason for the accumulation of surpluses of this product is quite different.

This is the situation here. The association received a negative response to a letter to the main cargo administration of the Ministry of Railways requesting permission to ship keramzit gravel to large-panel housing construction plants in Pskov and Kostroma. It was permitted to ship gravel only to those sections where it had no customers and where it was actually not needed.

And there was another decision from this same department which nullifies the efforts of our collectives. By an order of the first deputy minister of railways, V. N. Gin'ko, they established the so-called normal directions of cargo flow of reinforced concrete items on the railroads. They simply eliminated the point of the many years of work for creating the most important enterprises of our production base. Because of the strengthening of this base, in 1983 600,000 cubic meters of reinforced concrete were manufactured. This was an increase of 120,000 cubic meters over the preceding year. These thousands of cubic meters no longer have to be shipped from other union republics, as was previously the case. In 1984 Glavnechernozemstroy was able to refrain completely from bringing in reinforced concrete items.

Is this good? It would seem so. But the Ministry of Railways has limited the distances of shipments of our products to such a degree that it has narrowed extremely the zone in which they can be sold, which raises a doubt: why construct all those new enterprises and why spend hundreds of millions of rubles of state funds? Judging from the established cargo flows, apparently the most rational thing for which the Ministry of Railways is striving is not to ship the products anywhere, to leave them in the cargo yards of the plants. Here are some examples of this rationalism, if I may call it that. It was permitted to ship reinforced concrete items for water management structures from the Vologda plant to only as far as the Cherepovets station (134 kilometers), the Buy station (130 kilometers) and the Gryazovets station (40 kilometers). From the Yaroslavl plant one can send products only to Danilov and Rybinsk. This is only 80-100 kilometers. Other of our enterprises have had the same fate.

The Ministry of Railways has published information about early fulfillment of the plan for shipments in 1983. But during this period our plants alone failed to receive 2,500 cars which were planned for the Ministry of Railways to deliver. The Serpukhov Hidrostroydetal' plant alone failed to receive 300 cars, and 112,500 tons of reinforced concrete items were shipped by truck. When these cargoes are shipped by rail over a distance of 400 kilometers it

takes 363 tons of conventional fuel, and with trucks they have expended 2,750 tons.

Yet the railroad workers assert that they have everything in order with the cars, and that the daily norms for dispatching them are being fulfilled. But here, for example, is the sales division of the Gornozavodsk cement plant in Perm Oblast which is served by the Pashiya station of the Sverdlovsk railroad. It provides its own information: yes, there were enough cars at the station and on the sidings. But these are the property and rentals of the cargo recipients who have gathered their supplies.

This is the kind of situation which cannot be criticized, but requires a serious interpretation. Indeed it might be that the plant and railroad division should be permitted to use owned and rented cars instead of letting them stand idle for long periods of time so that they can be used to ship cement to consumers who do not have such cars. This measure would solve two problems at the same time: it would relieve many stations of hundreds of cars that are standing idle and it would provide for the delivery of cement to the plants and construction sites. It would not be difficult to document the return of the cars to the plant or to keep accounts with the owners. If only there were the desire.

A significant proportion of the shipments of cargoes along the routes of the Ministry of Railways are done with cars of the so-called technological fleet, that is, cars belonging to industrial enterprises. This is fairly appreciable assistance to the railroads! And in order for it to be even more significant, probably, it is necessary to improve the system of organization of the utilization of these cars. First of all it is necessary to eliminate the numerous stages in the documentation of the right to let them enter the tracks of the Ministry of Railways. For this purpose it would be possible to order that the six-digit numbers be assigned to cars of the industrial fleet directly by the railroad divisions instead of by the ministry's main traffic administration.

And perhaps it would be worthwhile to simplify and coordinate stations for loading and unloading these cars, since cars with six-digit numbers are a part of the working fleet of the Ministry of Railways even though they belong to other departments. For the routes of these cars are programmed by the directions of the cargoes that are being shipped in keeping with the plans for shipments which are approved by the railroad administrations.

The advantage from such a restructuring is obvious: tens of thousands of cars belonging to various branches of the national economy will begin to arrive loaded 8-10 percent more frequently. There will be a reduction of the time periods necessary for shipping products needed by enterprises and organizations of the agro-industrial complex. There will no longer be a need to use automotive transportation in places where it is more advantageous and economical to use the railroads.



## POST HARVEST CROP PROCESSING

### AUTOMOTIVE TRANSPORTATION USED TO MOVE HARVEST

Moscow SEL'SKAYA ZHIZN' in Russian 23 Jun 84 p 1

[Article: "The Transport Conveyor of the Harvest"]

[Text] Agricultural workers are entering a decisive stage in the struggle for the harvest of the fourth year of the five-year plan. Combines are already going out onto the fields of the southern farms. Mass reaping is drawing near. Conducting it successfully and ensuring high rates and quality depend largely on the efficient work of automotive transportation, which is a most important part of the harvest conveyor. Everything that has been raised must not only be harvested on time, but also be fully preserved and delivered to the procurement points and places for storage, consumption and processing efficiently and without losses.

At one of its recent regular meetings the Politburo of the CPSU Central Committee earmarked additional measures for providing automotive shipment of agricultural products during this year's harvest period in the Russian Federation, the Ukraine and Kazakhstan. Republic and local party, soviet and management agencies have been instructed to organize concrete work in each labor collective so as to promptly bring all existing equipment into the proper condition, to achieve effective utilization of it for shipping the harvest, and to be concerned about the people employed in the transportation of agricultural cargoes.

During the harvest time thousands of emissaries from automotive transportation enterprises and organizations of various ministries and departments and Goskomsel'khoshtekhnika work day and night, shoulder to shoulder with agricultural machine operators and drivers. The main task is to skillfully direct their joint efforts toward the achievement of high production indicators, to apply extensively the leading methods of organization of labor and socialist competition, and to publicize actively the innovative search of the best collectives of drivers and masters of the grain routes.

A great economic effect is produced by the so-called Saratov system of centralized operational planning of cargo shipments during the harvest time on the field -- threshing floor -- elevator routes. It provides for smooth interaction among drivers from automotive transportation, grain growers and procurement workers. All rayons are promptly creating centers for control of

the shipments of agricultural products which have at their disposal specially formed harvest automotive detachments which are provided with cargo vehicles regardless of their departmental jurisdiction. This makes it possible to maneuver the transportation extensively and not to allow it to stand idle.

The work of all motor vehicles that have been enlisted for harvesting the crops and the delivery of grain to the state grain bins are carried out strictly according to hourly schedules. They are drawn up with the help of electronic computers for each succeeding day in keeping with the concrete situation that has arisen on the fields, threshing floors and elevators, on the basis of on-the-spot information that comes into the oblast computer center concerning the quantity and quality of the grain that has been threshed, the number of vehicles that are prepared for handling shipments, and the handling capacities of the technological lines of the grain receiving enterprises. As a result, the drivers do not have to wait in lines at the elevator, as was previously the case, or during loading and unloading either. The productivity of the automotive transportation increases by 20-30 percent.

Practice shows that a centralized automated system for planning and control of transportation and procurement work, augmented by the collective contract, opens up broad possibilities of conducting the harvest without losses and with reduced labor and material expenditures. It is being introduced successfully in Kuybyshev, Chimbent, Tselinograd and other oblasts. It should be noted that the progressive form of organization of the labor of drivers which was introduced by the Saratov innovators has proved itself well also for the shipment of potatoes, sugar beets, corn for grain and rice.

At the same time, as the editorial mail shows, it is not everywhere that automotive transportation is utilized highly productively during the harvest time and with a full load. Frequently the truck drivers work according to the old methods and remain aloof from advanced experience. This pertains especially to a number of oblasts of the nonchernozem zone of the Russian Federation and the Kalmyk and Dagestan ASSR's.

Now it is very important for all the cargo vehicles and trailers to be in operation, to be included in the harvest work starting with the first days, and to be utilized with the greatest effectiveness. It is necessary to do everything possible so as not to repeat the mistakes of last year when, during the height of the harvesting work, a large number of trucks stood idle because of frequent breakdowns and the lack of the necessary spare parts, batteries and tires.

The truck crews of the Krasnodaravtotrans production association have prepared carefully for the harvest. Public technical commissions have inspected the reliability of components and aggregates of the trucks and the sealing of the boxes. A reliable stock of spare parts has been created at the rural repair bases. Camp shops have been staffed with experienced master adjusters and fitters. Mobile service stations, dining facilities and consumer service points will be sent along the grain routes. The hourly schedules for the utilization of the technical equipment envision two-shift work.



On-the-spot statistical data show that in the majority of republics, krays and oblasts the preparation of the automotive fleet for the busy harvest work is being conducted in keeping with the earmarked schedule. But in individual oblasts of the Russian Federation and Kazakhstan the repair of the cargo trucks is being delayed. It is the duty of local party, soviet and management agencies and the managers and specialists of kolkhozes, sovkhozes and Sel'khoztekhnika associations to take additional measures and to put trucks and truck trailers back into operation more rapidly. It is necessary to promptly create reliable supplies of fuel and lubricants, to augment the exchange supply of working components and parts, and to put the roads and sidings in order.

The work days of the farmers and all workers of the agro-industrial complex are filled with a fervent desire to honorably fulfill and overfulfill commitments for the sale of grain and other products to the state. The country's transportation workers are called upon to ensure the preservation of all of the crops that have been raised and to concentrate their efforts on improving the control of the shipments, introducing advanced experience and utilizing each motor vehicle effectively.

11772

CSO: 1824/549

## POST HARVEST CROP PROCESSING

### RAILROAD, PROCUREMENT WORKERS COOPERATE IN HARVEST

Moscow GUDOK in Russian 4 Jul 84 p 1

[Article: "The Harvest Dictates the Rates"]

[Text] The grain harvest is in progress in the south of the country. The first vehicles filled with grain from the new harvest have already been unloaded. As the communications from our correspondents from the Northern Kazakh and Dnepr mainlines show, railroad workers have done a great deal in conjunction with procurement workers in order to make sure that this harvest proceeds successfully.

Very soon the boundaries of the harvest will expand, and mass shipments of grain will begin. It is necessary to greet them, as they say, fully armed. But on a number of railroads the points for preparing the cars are still not operating satisfactorily, and the output of covered cars for grain and other food cargoes is not high. The situation is especially unfavorable on the Volga, Kuybyshev, Oktyabr and Baltic lines.

Enterprises of the main administration for the repair of rolling stock and production of spare parts are not satisfying the demands to improve the covered cars. This pertains primarily to the Darnitskiy, Barnaul, Panyutino and Kanash car repair plants.

On certain railroads not enough attention is being paid to the routing of the cargoes. For example, there is now a lower level of dispatch of agricultural machines on direct trains on the Belorussian, Tselinnaya and Western Siberian roads, and on the Moscow railroad this does not exceed 6 percent. Routed shipments of motor vehicles have been reduced on the Dnepr and Kuybyshev mainlines.

The preparation of sidings at grain receiving enterprises has been organized unsatisfactorily. Thus on the Tselinnaya railroad only 12.9 percent of them have been put into the proper order, the Sverdlovsk -- 16.6 percent, the Volga -- 21 percent, the Kemerovo -- 32.3 percent, and in the network as a whole -- 61.6 percent.

About 15 percent of the elevators, warehouses and grain receiving points have not been adapted for putting grain into the cars with self-sealing doors

through the loading hatches on top, and 34.8 percent of the client enterprises have not been prepared for work with grain cars. Therefore in the very near future it will be necessary to conduct an additional inspection for the readiness of the sidings, elevators, grain receiving points and storehouses for the arrival of the new harvest. Special attention should be devoted to the condition of the warehouse and weighing facilities, the tracks, the mechanisms and the cargo fronts.

It is necessary to check daily on the fulfillment of the assignments for transporting agricultural cargo on the routes, and to increase the efficiency of these shipments by dispatching the cars according to calendar schedules on the routes according to direction and purpose.

In order to transport the new harvest continuously, the railroads must create the necessary reserve of covered cars and grain haulers. Greater requirements must be placed on the recipients and dispatchers so that they will utilize the handling capacities of the cars better and clean them more carefully after using them.

There must also be constant supervision of the utilization and care of grain panels and packing rods at stations and the points for loading and unloading grain. It is also necessary to gather up the repaired grain panels promptly and send them to the ~~grain~~ loading stations under regular assignments, while the unrepaired ones should be sent to repair points. In a word, during the course of this important work the cooperation between railroad workers and procurement workers should be even stronger on every main railroad!

11772

CSO: 1824/549

## POST HARVEST CROP PROCESSING

### RAILROAD RESPONSIBILITY FOR DISPATCH, PICKUP OF CARS

Moscow MUKOMOL'NO-ELEVATORNAYA I KOMBIKORMOVAYA PROMYSHLENNOST' in Russian  
No 4, Aug 84 p 20

[Article: "Responsibility for Dispatch and Pickup of Cars"]

[Text] At a meeting of editorial staff workers and readers they expressed a desire to have published in the magazine an explanation of the railroad's responsibility for prompt dispatch and pickup of cars from the sidings of enterprises.

At the request of the editorial staff, the essence of this question is addressed by the division chief of the transportation administration of the USSR Ministry of Procurements, V. A. Nazarov.

According to Article 50 of the USSR Railroad Regulations, for the delay of a car for more than 15 minutes at the fault of the railroad, their dispatch for loading or unloading in violation of the time periods envisioned by the contract for the operation of the railroad siding or the contract for the dispatch and pickup of cars, the railroad pays a fine to the cargo dispatcher or cargo recipient in the amount of 60 kopecks per car per hour, but not for more than 6 hours.

When dispatching cars, upon notification the indicated fine can be exacted upon the expiration of the time indicated in paragraphs 24 and 55 of the rules for operating railroad sidings for dispatching cars after notification, and the delay is more than 15 minutes.

Article 92 of the USSR Railroad Regulations established the responsibility of the railroad for a delay of more than 15 minutes in picking up the cars from the places of loading and unloading on the railroad sidings, when the dispatch and pickup of the cars are done by a locomotive of the railroad. The fine established by this article is calculated for the entire time of the delay from the expiration of the time period for gathering the cars or receiving the cars from the sidings which is stipulated by the agreement for the operation of railroad sidings or the agreement for the dispatch and pickup of cars. Consequently, the parties are obligated to establish these time periods in the agreement for the operation of the railroad or the dispatch and pickup of cars

(regardless of which party the siding belongs to -- the railroad or the enterprise, institution or organization. The time periods for the pickup of cars from the places of loading and unloading or the receiving and release roads are established on the basis of the technology for the organization of the work of the main railroad switchyard or siding.

If the technology for the organization of the work has not determined these time periods, they must be stipulated in the agreement between the parties, taking into account the work of the switchyard and siding. In those cases in which the parties have not reached an agreement regarding these issues and the dispute has been turned over for arbitration, according to the rules for considering economic disputes by state arbitration agencies, each of the parties must substantiate the time periods for pickup of the cars which it suggests. When these time periods are not included in the agreement that is in effect, changes can be made in the agreement on the initiative of the state arbitration agency.

COPYRIGHT; Mukomol'no-elevatornaya i kombikormovaya promyshlennost'", 1984

11772  
CSO: 1824/549

## POST HARVEST CROP PROCESSING

### ROUTES FOR GRAIN DELIVERIES BEING PREPARED

Minsk SEL'SKAYA GAZETA in Russian 30 May 84 p 1

[Article: "Grain Routes Will Be Ready"]

[Text] A computer helped the unified dispatcher service of the republic's agro-industrial complex to select the optimal routes of shipping the new crop. It also "advised" how to reduce by one-third the number of trucks used to deliver the grain and other agricultural products. Now brigades of drivers who are working according to the collective contract method will transport all of the harvest to the grain bins in large trucks and truck trains. The experience of the initiators of this progressive form of labor organization -- the honored transportation worker of the Belorussian SSR, the leader of the driver brigade from Rechitskiy automotive combine No 5, V. P. Maksimchuk, and N. P. Kravchenko from the Orsha automotive combine No 2 -- has shown that the output from one vehicle can be increased by 30-50 percent, bringing it up to 2,000 tons of grain during a season.

"With the participation of all partners in the agro-industrial complex in the republic, a unified plan has been developed for the organization of procurement and transportation work during the 1984 harvest period," the chairman of the central dispatcher service, first deputy minister of the Belorussian SSR automotive industry, L. L. Bachilo, told a BELTA correspondent. The mistakes and omission of last year have been analyzed. The main reason for them was the inadequate provision for the receiving points, especially in organizations of Belkoopsoyuz. There is not enough unloading equipment for the large-cargo trucks and truck trains at the elevators either. This year the procurement workers are putting into operation an additional 8 truck unloaders, 7 scales for large-cargo trucks and 10 mechanical sample takers, and the capacities for storing the grain have been increased.

The construction of loading and unloading areas and more than 100 grain cleaning and drying points is now being completed on the kolkhozes and sovkhoses of the republic. Specialists of the Belorussian SSR Goskomsel'khoshtekhnika are installing on the farms 300 stationary truck scales and 100 hopper-accumulators.



We are extensively taking advantage of the experience of Grodno and Minsk oblasts in organizing procurements of sugar beets. Mobile automotive detachments of Sel'khoztekhnika which are equipped with special sugar beet loaders are delivering the "sweet" roots to the sugar refineries on time and without losses.

With the help of communications from the RAPO, the central dispatch office is refining the grain routes and drawing up schedules for the movement of automotive transportation. This will make it possible to reduce idle time of the technical equipment and to accelerate the shipment of grain and other agricultural products.

11772

CSO: 1824/549

## LIVESTOCK

### MEAT, DAIRY INDUSTRY MINISTER OUTLINES GOALS, NOTES PROBLEMS

Moscow EKONOMICHESKAYA GAZETA in Russian No 28, Jul 84 p 2

[Article by Ye. I. Sizenko, USSR minister of the meat and dairy industry:  
"Goals and Reserves of the Branch"]

[Text] Workers of the meat and dairy industry can identify with and understand the words of Comrade K. U. Chernenko at the April (1984) Plenum of the CPSU Central Committee and the all-union economic conference on problems of the agro-industrial complex concerning the need for ever greater efforts for fulfilling the Food Program.

Certain positive changes have now been noted in the activity of enterprises of the USSR Ministry of the Meat and Dairy Industry. In 1983 they produced 1.7 billion rubles' worth of products in excess of the plan. As compared to 1982, production increased by 2.8 billion rubles. Reinforcing the success that has been achieved, during 5 months of this year the branch produced a considerable quantity of meat, sausage items, animal oil, cheese, whole milk products, and other products for a sum of more than 750 million rubles in excess of the plan. The output per one industrial production worker increased by 5 percent as compared to last year, while the assignment, taking socialist commitments into account, was for 2.1 percent. During 5 months expenditures on production dropped by 0.35 percent as compared to the plan. The leading enterprises of the branch are confidently providing for above-plan growth of labor productivity by 1 percent and an additional reduction of production costs by a half percent. But there are also those that are lagging behind.

We are clearly aware that under the conditions of rapid growth of the material well-being of the Soviet people and the increased demand for products of the highest quality, what has been achieved so far appears quite modest. To a certain degree, the successes and difficulties of our processing branch are related to the condition of the raw material base of the meat and dairy industry -- animal husbandry. Yet a great deal depends on us ourselves, on our ability to handle the existing resources and capacities.

At the present time the meat and dairy industry is a large, highly industrial branch of the country's agro-industrial complex.

In the system of the USSR Ministry of the Meat and Dairy Industry there are about 5,000 enterprises in which hundreds of thousands of people are employed. Each year the branch receives and processes 18 million tons of cattle and 64 million tons of milk, and it processes 38 billion rubles' worth of products, which comprises 43 percent of the overall volume of commercial food products in the country.

The production and technical base of the meat and dairy industry began to develop most intensively after the March (1965) Plenum of the CPSU Central Committee. During this period the fixed production capital increased 3-fold. They constructed 1,230 new enterprises and renovated and expanded 1,350 existing ones. Entire subbranches were created in short periods of time: for producing children's food products, whole-milk substitutes for feeding young agricultural animals, quick-frozen dishes, for manufacturing modern containers and packaging materials, and so forth.

Self-critically evaluating the state of affairs in the branch, the collegium of the USSR Ministry of the Meat and Dairy Industry sees serious shortcomings and urgent problems which are still making it impossible to provide for prompt receipt of cattle and milk everywhere without losses or the delivery of products to the trade network in containers or packaging that are convenient for the customers. They have not yet managed to introduce the proper order at all enterprises or to achieve a high art of production. There is serious criticism regarding questions of losses of raw material, inefficient utilization of secondary resources, and the output of poor-quality products, for instance, milk containers that leak. The collegium of the ministry is not ignoring a single critical remark and is taking decisive measures to rectify the situation.

In keeping with the Food Program, in 1990 the branch will have to provide for the production of 48 percent more products than in 1980.

In order to carry out this task it is necessary to update our fixed capital to a considerable degree. This year alone it will be necessary to put capacities into operation at 47 enterprises that are either being constructed or renovated. The construction of such facilities proceeds efficiently in places where the proper attention is paid by local party, soviet and management agencies. This pertains above all to Belorussia, Lithuania, Georgia, Moldavia and Uzbekistan, and also Gorkiy, Kuybyshev and a number of other oblasts in the RSFSR.

Unfortunately, this is certainly not the situation everywhere. In a number of oblasts of the RSFSR, the Ukraine, Kazakhstan and Kirghizia the existing capacities do not make it possible to provide for prompt receipt and comprehensive processing of raw material during the season when it arrives in large quantities. And at the same time they are slow at constructing or renovating many enterprises here.

Not one of the main construction ministries has kept up with the five-month assignment for construction projects in the branch. Organizations of the USSR Ministry of Construction of Heavy Industry Enterprises, for example, have reached only 80 percent of the limit of construction and installation work,

and the Ministry of Construction in the Far East and Transbaykal Regions -- 66 percent.

There are great arrears in the construction of many facilities whose startup was planned for this year: meat combines in Shumikha in Kurgan Oblast, Roslav in Smolensk Oblast, Peveka in Magadan Oblast, and Talas in Frunze in the Kirghiz SSR, a cheese plant in Mtsensk in Orel Oblast, a plant for sterilized milk in Mozhaysk in Moscow Oblast, a dehydrated milk plant in Buryn' in Sumy Oblast, a city dairy in Guryev in the Kazakh SSR, and a milk combine in Stepanakert in the Azerbaijan SSR.

Under the conditions of the limited influx of labor resources into the branch, the task of further mechanization and automation is crucial. The proportion of manual labor in our branch is 46 percent and it is practically not decreasing at all. The proportion of manual labor is especially high in initial processing of cattle, treatment of the hides, and production of curds and cheese. There are more than 70,000 people employed in loading and unloading work.

It is impossible to do without radical restructuring and technical re-equipment here. New equipment is needed. The enterprises must have 900 kinds of technological equipment and mechanized flow lines. But the Ministry of Machine Building for Light and the Food Industry produces only 532 kinds of equipment.

Enterprises of the branch are faced with the task of comprehensive utilization of raw material.

When processing cattle, poultry, meat and milk they form 400,000 tons of blood, 900,000 tons of bones, 38 million tons of nonfat milk and buttermilk and 12 million tons of whey a year. More than half of this raw material is utilized inefficiently because of the shortage of production capacities, equipment and various components for producing dry protein mixtures and whole milk substitutes.

The corresponding decisions envision increasing the industrial processing of skim milk and buttermilk to 25 million tons and whey to 11 million tons in 1985, and they are also to increase considerably the output of products made from this raw material. It is intended to introduce capacities for producing 1,100 tons of nonfat dry milk, whole milk substitutes and dry whey per shift. But the matter is progressing at slow rates.

It has been calculated that with comprehensive utilization of raw material it is possible to produce for food purposes an additional 110,000 tons of protein, 120,000 tons of fat, and 145,000 tons of lactose, which is tantamount to saving more than 6 million tons of feed units in agriculture. This is why it is extremely necessary to introduce waste-free technology everywhere, and always to be increasing the output of food products using these valuable protein supplements. And for these purposes it is necessary to apply more actively membrane methods of complete processing of milk (ultrafiltration, reverse osmosis and electrodialysis).

A most important direction for increasing the effectiveness of our production is the changeover to receiving cattle and milk directly on the farms, and shipping them with special transportation belonging to the procurement organizations.

It is well known that the development of direct ties and centralized shipping make it possible to organize the work of the enterprises more rhythmically, to use transportation efficiently and to reduce losses of raw material during shipment. But in 1983 this progressive method was used to ship only 23 percent of the cattle and 29 percent of the milk that were delivered for processing. This work is being done unsatisfactorily at many enterprises of the ministries of the meat and dairy industry of the RSFSR and the Ukrainian, Kazakh and Uzbek SSR's.

At the same time, in places where managers are actively introducing centralized shipments they are receiving good results. A confirmation of this is the work experience of the Belorussian SSR Ministry of the Meat and Dairy Industry, which centrally ships 72 percent of the cattle and 40 percent of the milk from the kolkhozes and sovkhozes.

The work experience of the collective of the Belgorod production association of the dairy industry where almost 90 percent of the milk that is purchased is delivered by centralized shipment should become widespread. At the same time, in the neighboring Kursk Oblast this method is used to ship only 24 percent and in Lipetsk Oblast -- 22 percent of the milk.

The completion of the changeover to centralized shipment of cattle, poultry and milk in 1990 will provide for a reduction of expenditures in an amount of 250 million rubles and will considerably improve the quality of the raw material that comes in for processing.

Taking into account the importance of changing over to direct ties, our ministry has set the task of increasing centralized shipment of cattle by 43 percent this year as compared to the 1983 level, and milk -- by 28 percent. The completion of the changeover to centralized shipping will require 24,000 cattle trucks and 65,000 tank trucks, and so far the branch has only one-sixth of this number. We are hoping that under the 12th Five-Year Plan we will have solved problems of allotting specialized transportation and capital investments for these purposes, and the USSR Ministry of Agriculture will take decisive measures to prepare the farms for releasing the products locally.

It is necessary to take the most decisive measures for improving product quality and strictly observing the rules of technology.

Many violations were discovered at enterprises of Altay, Poltava, Kaluga, Khmel'nitski and Smolensk dairy industry associations, and Kursk, Penza, Kalinin, Orel and Ryazan meat industry associations. The board of the USSR Ministry of the Meat and Dairy Industry has thoroughly discussed the problems related to a radical improvement of the quality of the products that are produced and adopted a detailed decision which envisions implementing a complex of necessary organizational and technical measures and strengthening technological and sanitary discipline at the enterprises.

The ministry has studied and approved the work experience of the Donetsk meat combine. Here they have changed 90 percent of the brigades over to cost accounting. A large amount of work has been done to improve planning, accounting, material and technical supply and engineering support for autonomously financed collectives. As a result, the established plans are being overfulfilled and a considerable quantity of various kinds of resources has been saved. The ministries of the meat and dairy industry of the union republics and the all-union production associations must more actively disseminate the experience in introducing cost accounting that exists in the branch, and create the necessary production conditions for the brigades so that they will be able to achieve maximum final results with reduced numbers of personnel. For we have enterprises which cost accounting has not even reached yet.

Implementing the decisions of the April (1984) Plenum of the CPSU Central Committee, workers of the meat and dairy industry are doing everything possible to fulfill the plans and commitments of the fourth year of the five-year plan ahead of schedule, and make a worthy contribution to the implementation of the Food Program.

11772

CSO: 1824/547



LABOR PRODUCTIVITY, OUTPUT CAPITAL RATIO IN KOLKHOZES DISCUSSED

Moscow EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 5, Apr 84 pp 67-71

[Article by V. Gayevskaya, deputy chief of Agricultural Statistics Administration, USSR Central Statistical Administration, and A. Silin, economist: "Labor Productivity and Output Capital Ratio in Kolkhozes" ]

[Text] During the the current five-year plan, it is planned to increase the production of agricultural products by 12-14 percent. This increase will essentially come from increased labor productivity, which should grow 22-24 percent. One of the most important factors making it possible to ensure such a growth is the capital-labor ratio. But labor productivity in agriculture depends not only on the degree of its technical equipment but also on natural conditions.

Soils of different fertility and different weather conditions exert a significant influence on the yield of agricultural crops and consequently on labor productivity. Thus, as a consequence of unfavorable weather conditions in 1969 and 1972, gross agricultural production of kolkhozes compared to its volume in preceding years was reduced by 4 percent, while in 1975 and 1979 it again increased by 8 percent. The cited data show that kolkhozes are as yet unable to obtain normal yield under any conditions. This makes it necessary to ably adapt work to climatic adversity, to intensify specialization on the basis of regions and also to introduce into production those crops which provide good yields in the case of both inadequacy and excess of moisture.

In the USSR, much work is being done on irrigation of land in arid regions and on reclamation of wet land. This makes it possible to acquire stable high yields under any weather conditions.

Basic indicators characterizing labor productivity and the output-capital ratio on kolkhozes of the USSR are presented in Table 1.

Therefore the rate of the capital-labor ratio of kolkhoz farmers in the years of the 10th Five-Year Plan compared to the growth rate of labor productivity on kolkhozes in the said years was twofold higher. It should be emphasized that the rate growth of production of gross agricultural output lags significantly behind the growth of labor productivity. For example, gross

production (in 1973 prices) on kolkhozes for the years under consideration increased only 14 percent, while labor productivity during these years rose 43 percent.

The replacement of manual labor with mechanized, for example, in combine harvesting of grain crops, sugar beet, cotton and potatoes as well as in mechanized milking of cows significantly reduces outlays of live labor although the amount of produced output practically does not grow. Thus, labor productivity in grain production during 1976-1980 compared to its level during 1961-1965 increased 3.5-fold on kolkhozes while the yield of grain crops for this period grew only 1.6-fold. Fixed capital for the examined period grew 2.8-fold per hectare of agricultural land, but the production of gross agricultural output increased 36 percent. For this reason output-capital ratio diminished during 1976-1980 compared to its level during 1966-1970 twofold.

Let us note that fixed capital of the agricultural type in 1980 compared to 1966 had grown 3.1-fold on kolkhozes, while the area of agricultural land during these years was reduced from 221 million hectares to 171 million hectares, or by 23 percent.

One should not forget that fixed production capital in agriculture is only part of the capital taking part in agricultural production. It does not take into consideration land not possessing cost valuation, although it is the chief means of agricultural production. Agricultural production is created as the result of special biological processes occurring in plants under the influence of farmers' live labor: "The land itself," K. Marx wrote, "is a means of labor, but its functioning as a means of labor in agriculture in turn presupposes a number of other means of labor and a comparatively high development of manpower" (Marx, K. and Engels, F., "Soch." [Works], Vol 23, p 190). Different types of means of labor play a differing role in agricultural production. Some of them more actively influence growth of labor productivity and increase of production output as, for example, tractors, agricultural machinery, seeds, fertilizers and others. Other elements (buildings, structures and so forth) play a less active role, but all of them are the material conditions of production of the end product. Consequently, it is not right to classify the indicator of the output-capital ratio under basic means of production. It should come under all production capital, that is, fixed and working capital.

During the last three five-year plans (1966-1980) kolkhozes put out more than 160 billion rubles on capital investment and capital repairs. They spent of the said sum half, that is, about 80 billion rubles on construction of buildings and structures. As a result their share in the cost of fixed production capital of agricultural designation rose from 55 percent in 1965 to 63 percent in 1980. The share of the value of machinery, equipment and means of transport respectively dropped from 23 to 20 percent and that of productive cattle--from 16 to 13 percent. Thus the share of active production equipment was reduced.

Experience teaches that the chief condition of agricultural effectiveness is employment of the most complete system of machines and on its basis the

Table 1. Dynamics of Labor Productivity and Output-Capital Ratio on USSR Kolkhozes

	Yearly average			1976-1980
	1966-1970	1971-1975	1976-1980	in % of 1966-1970
Available for average yearly worker:				
fixed production capital, thousands of rubles	2.23	3.59	6.17	279
gross agricultural production, thousands of rubles	2.42	2.98	3.46	143
Available per hectare of agricultural land:				
fixed production capital, rubles	170	298	473	278
gross agricultural production, rubles	185	227	252	136
Output-capital ratio (100 rubles of fixed produced gross agricultural output), rubles	113	80	55	49
Total gross agricultural production output, billions of rubles	39.7	43.7	45.3	114

introduction of new technology and organization of production. Plant varieties of higher yield and more productive breeds of animals provide significant results.

The employment of industrial technology of growing and harvesting corn, sunflower, sugar beet and other crops without outlays of manual labor makes it possible to increase the yield of crops and to sharply raise labor productivity. For example, the introduction of moldboardless system of farming makes it possible to produce high and stable harvests of grain crops on the virgin lands. The transition of animal-husbandry production to an industrial basis makes it possible to ensure a significant curtailment of fodder expenditure per production unit and to boost the productivity of socialized labor. The wide-scale use of new methods of cultivating agricultural crops and maintaining cattle as well as systematic deepening of specialization and concentration of production offer real prospects for further raising the country's agricultural intensiveness during the 11th Five-Year Plan.

Together with fixed production capital, working capital exerts a significant influence on increasing production of agricultural output. The use of fertilizers as well as seed of high-yield varieties of agricultural crops, toxic chemicals and herbicides also exerts an influence on yield growth. Thus gross agricultural output is produced with live labor, ably using fixed capital and working capital, as well as the natural and economical fertility of the land.

The indicator of the output-capital ratio computed as the amount of produced gross output per 100 rubles of fixed production capital does not reflect their most important function--mechanization of agricultural production. Worktime savings through the mechanization of manual labor on kolkhozes today has reached a significant scale. Thus direct and indirect labor outlays per 100

rubles of gross agricultural output from 70 man-hours in the years of the Eighth Five-Year Plan dropped to 52 man-hours in the years of the 10th Five-Year Plan, or by 26 percent. In computation of the total volume of gross agricultural output produced during the 10th Five-Year Plan, savings of live labor on kolkhozes amounted to about 8 billion man-hours. The number of average annual agricultural workers of kolkhozes was smaller in 1980 compared to 1966 by 4.6 million persons, or 27 percent less. Thus the use of machines and tools made it possible to reduce outlays of live labor, which is an indicator of a rise in its productivity and effectiveness of use of modern equipment. "...The productivity of a machine," K. Marx wrote, "is measured by the degree with which it replaces the human work force." (Marx, K. and Engels. F., "Soch." [Works], Vol 23, p 402).

Consequently, the more manpower is replaced, that is, the more live labor is conserved with the use of these or those machines, the more productive are the machines. Effectiveness of use of machines is determined by the fact that labor expended on their production must be less than the labor which is replaced through their use. "The less cost they transfer to the product," Marx pointed out, "the more productive are they...." (Ibidem, p 401). Unfortunately, in recent years prices for new brands of machines delivered to kolkhozes are frequently set not in accordance with the growth of their productivity. As a result, the cost transferred to the product is not reduced with the use of these machines, but, conversely, is increased. The rise in the cost of means of production supplied to agriculture by industry results in hiking of the cost of fixed production capital and, consequently, in reduction of the output-capital ratio.

The output-capital ratio under the present method of its computation cannot serve as a basic indicator of effectiveness of use of fixed capital also because during the period of accelerated creation of the material-technical base of agricultural production, fixed capital grows at a higher rate than the production of gross agricultural output. Thus during the 10th Five-Year Plan compared to the Eighth fixed capital on kolkhozes increased 2.3-fold, while gross agricultural production only grew 14 percent. It is clear that in the years immediately ahead the growth rate of fixed capital will outstrip the growth rate of gross agricultural production. This means that the indicator of the output-capital ratio computed as the amount of gross output per 100 rubles of fixed capital will also be reduced and show a purported deterioration in the use of fixed production capital.

In our opinion, a most important measure of effectiveness of agricultural production today in agriculture will be the indicator characterizing the effectiveness of use of land as the chief means of production. Such an indicator is the size of produced gross agricultural output per hectare of agricultural land, that is, the hectare yield. V.I. Lenin pointed out: "...it should not be forgotten that all these differences in economic organization, equipment and the like are summated in yield" ("Poln. sobr. soch." [Complete Works], Vol 17, p 133).

The hectare yield should also be characterized by a high yield level. For each farm, the indicator of hectare yield is a complex indicator characterizing

Table 2. Indicators of Intensification Level of Agriculture on USSR Kolkhozes

	1966- 1970	1971- 1975	1976- 1980	1976-1980 in % of 1966-1970
Per hectare of plowland:				
fixed production capital in crop growing, rubles	151	246	370	245
production costs, rubles	125	173	233	186
tractor operations, in standard hectares	7.4	10.5	12.6	170
mineral fertilizers applied (in equivalent of active substance), kg	42	71	99	236
gross production of crop growing (in 1973 prices), rubles	209	231	249	119
Gross output of cropgrowing produced per man- hour, rubles	1.52	184	2.16	142

the effectiveness of organization of agricultural production as a whole. It reflects and summates all aspects of kolkhozes' (and sovkhoses') operational activity, including efficiency in use of land, fixed and working capital and organization of labor and production.

The necessity of more efficient use of land, fixed production capital and working capital is pointed out in the decree of the CPSU Central Committee and the USSR Council of Ministers "On Further Strengthening Kolkhozes and Sovkhoses with Managerial Cadres and Specialists and Increasing Their Role and Responsibility in the Development of Agricultural Production," affirmed by the May (1982) Plenum of the CPSU Central Committee: "...to concentrate the efforts of heads and specialists of kolkhozes and sovkhoses and all agricultural workers on improving the use of land, fixed capital, mineral fertilizers, fodder and other resources, perfecting organization of production and increasing labor productivity as decisive conditions of attainment a high rate of increase of production of agricultural output designated for the 11th Five-Year Plan and subsequent years."

An increase of economical fertility of the soil and on this basis growth of crop yield has become a first-priority concern of agricultural workers. The application of required amounts of fertilizers, sowing of high-yield seed of regionalized varieties of all crops and the introduction of scientifically based systems of agriculture and crop rotations, new equipment and technology as well as efficient organization of production on the basis of the brigade contract are most important measures aimed on farms for the attainment of a high yield for agricultural crops. The basic indicators characterizing the level of standards of farming on USSR kolkhozes are presented in Table 2.

The high rate of intensification of agriculture on kolkhozes made it possible to improve cultivation of the soil and to raise the level of mechanization



Table 3. Basic Indicators of Animal-Husbandry Development on USSR Kolkhozes

	1966- 1970	1971- 1975	1976- 1980	1976-1980 in % of 1966-1970
Calculated per standard head of cattle:				
fixed production capital in animal-husbandry sectors, rubles	443	618	862	195
production costs, rubles	286	352	449	157
fodder expended, fodder units	2,770	2,660	2,740	100
gross animal-husbandry production (in 1973 prices), rubles	378	383	380	101
Gross animal-husbandry output produced:				
fed productive cattle per 100 fodder units, rubles	32.4	30.3	30.4	94
per 1 man-hour worked in animal husbandry, rubles	1.33	1.59	1.71	129

of agricultural operations as well as to raise labor productivity, although the production of gross crop-growing output per hectare of plowland increased by a total of only 19 percent throughout these years. This is due to slow growth of agricultural-crop yield. Thus during 1976-1980 compared to 1961-1965 grain-crop yield increased only 1.6-fold and that of potatoes, sugar beet and cotton grew only 1.4-fold. Higher rates of yield growth occurred during the 8th Five-Year Plan. In the years of the Ninth and 10th Five-Year Plans, crop-yield growth slowed down. A significant influence on slowing down of the tempo, as was pointed out above, was exerted by unfavorable weather conditions of some of the years of the 9th and 10th Five-Year Plans. But a great deal depends on inadequate quantities of organic and mineral fertilizers, although their application in recent years on kolkhozes has been significantly increased. Thus, whereas in the years of the Eighth Five-Year Plan 42 kg were applied per hectare of plowland on the average per year expressed in terms of active substance, during the years of the 10th Five-Year Plan, the figure was 99 kg. At the same time, the structure of applied mineral fertilizers was improved. For example, in 1965 the share of nitrogen fertilizers constituted 40 percent of their total amount, but in the years of the 10th Five-Year Plan it equaled 44 percent, which was very important for the expansion of fodder production and growth of animal-husbandry production output on the basis of intensification.

The basic production indicators of animal-husbandry development on USSR kolkhozes are shown in Table 3.

Thus fixed production capital in animal-husbandry sectors of kolkhozes calculated per standard head [perevodnaya golova] in the years of the 10th Five-Year Plan compared to the Eighth Five-Year Plan grew considerably.



The number of standard productive cattle increased only 14 percent during these years. The amount of produced gross animal-husbandry output per standard head of productive cattle for the studied years remained almost unchanged. As a result, the total volume of gross animal-husbandry output (in 1973 prices) remained practically at the same level, roughly at 20 billion rubles. At the same time, growth of productivity of the animals occurred more slowly on kolkhozes than growth of yield. Milk yield per cow during the years of the 10th Five-Year Plan compared to the Seventh Five-Year Plan increased by 37 percent and sheared wool per sheep--by 19 percent.

A decisive condition of successful development of animal husbandry is provision of cattle with the necessary fodder. During the studied years, a constant disproportion was to be found on kolkhozes between fodder needs and actual size of fodder production. An imbalance existed in feeds with regard to the elements of nutritive substances. Thus, on kolkhozes, fodder expenditure per standard head during the Ninth Five-Year Plan amounted on the average to 2,660 feed units and during the 10th--to 2,740 feed units in the face of a norm of 3,300-3,500 feed units (for high milk-yield cows, the annual norms reaches 4,000 or more feed units). Effectiveness of fodder use on kolkhozes in recent years has even been reduced somewhat. Whereas during the Eighth Five-Year Plan, 100 feed units fed to all types of productive cattle produced a gross animal-husbandry yield in the amount of 32.4 rubles, in the years of the Ninth Five-Year Plan, production amounted to 30.3 rubles and during the years of the 10th Five-Year Plan--to 30.4 rubles.

It ought not to be forgotten that a significant portion of intaken fodder goes to support the life of animals and only the remaining part is used for the creation of output. V.I. Lenin pointed out that "...the most painstaking care of cattle in the presence of a shortage of resources, in the presence of a shortage of fodder, in the case of poor quality of cattle, in the case of poor housing and the like is the equivalent of useless waste of labor" ("Poln. sobr. soch.", Vol 5, p 239). On many kolkhozes, much is left to be desired in regard to the best breed qualities of cattle. In 1980, the share of high-productive, pure-bred cattle amounted to only 35 percent. Only with copious and intensive feeding of highly productive cattle is effective use of fodder and therefore of production of a large amount of animal-husbandry output ensured.

Let us point out that productivity of socialized labor in animal husbandry during the years of past five-year plans rose considerably more slowly than in crop growing. For example, hourly productivity of labor in animal husbandry for the studied years grew by 28 percent, whereas in crop growing it rose by 42 percent. For agriculture as a whole, this indicator grew by 34 percent. In order to achieve a higher level of hectare yield, it will be necessary to increase still more fertility of the soil, to introduce high-yield varieties of agricultural crops and to rear pure-bred highly productive animals as well as to bolster the fodder base.

In the decree of the May (1982) Plenum of the CPSU Central Committee "On the Plan of the USSR Food Program for the Period to 1990" it is emphasized .

"...that at present when the state is proceeding to further increase investment in agriculture and its intensification for the purpose of more rapid growth of foodstuffs in the country it is especially important to concentrate efforts on an all-out rise of standards of agriculture and animal husbandry and a struggle for improving the use of land, productive capital, material, labor and financial resources and for raising labor productivity and quality of work, elimination of losses, economy and thriftiness and reduction of production cost on kolkhozes and sovkhozes."

COPYRIGHT: Izdatel'stvo "Kolos", "Ekonomika sel'skogo khozyaystva", 1984

7697

CSO: 1824/528

END

**END OF**

**FICHE**

**DATE FILMED**

17 Sept. 1984